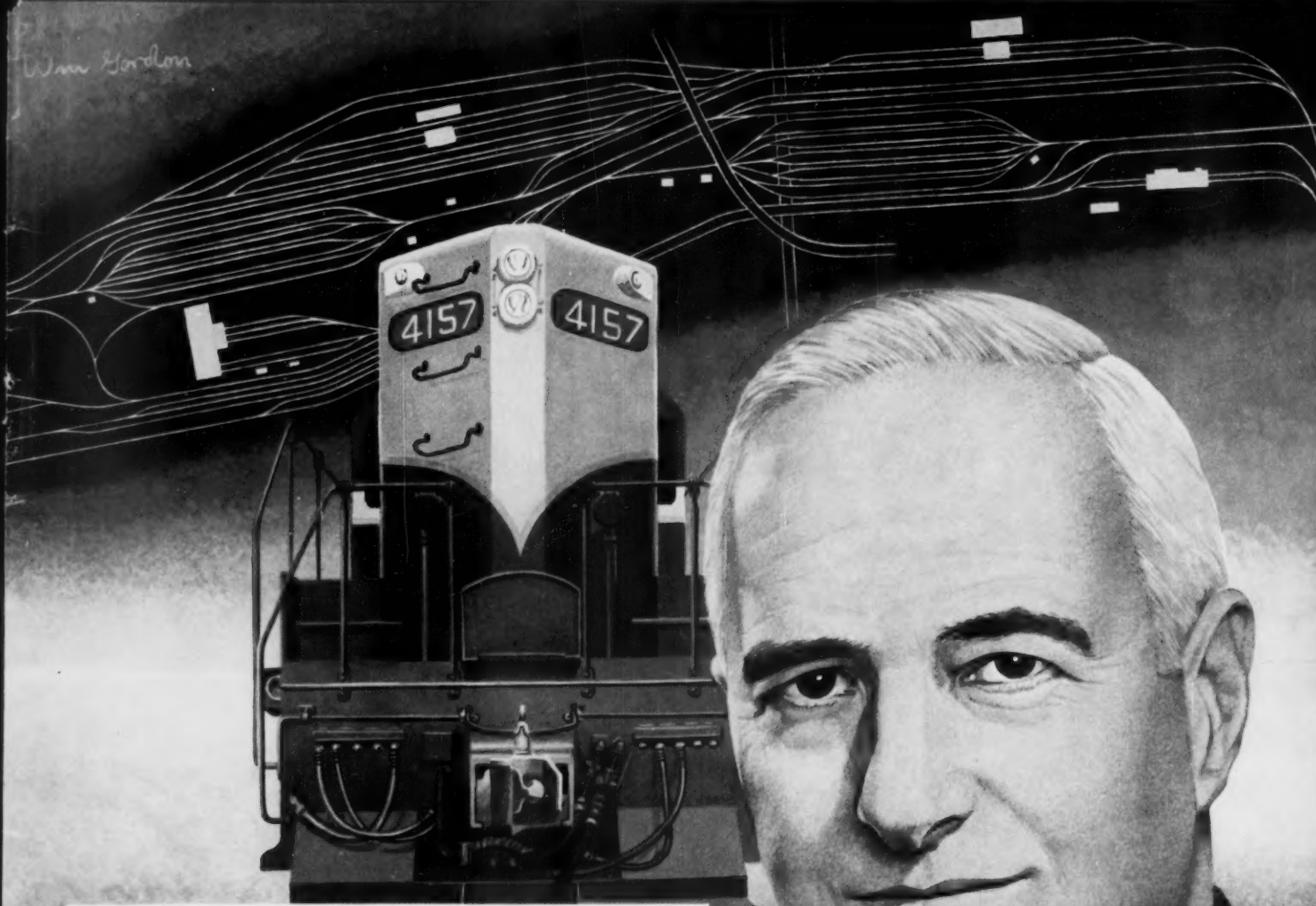


June 23, 1958

Today's Hot Box
Debate—p. 17

RAILWAY AGE *weekly*



Men Who Build the Future of American Railroads

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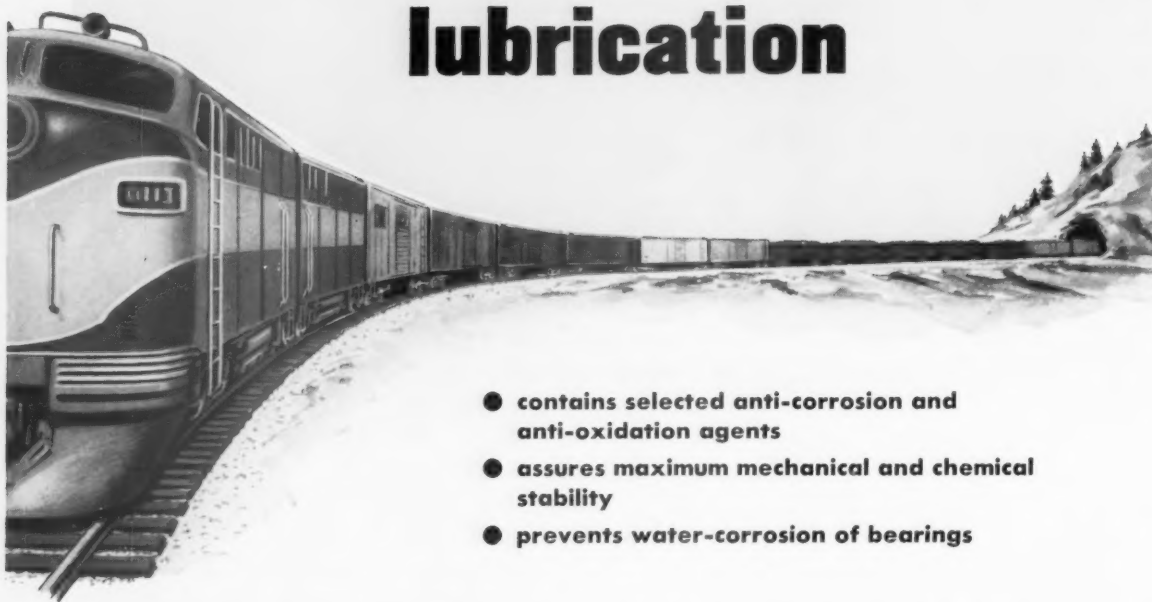
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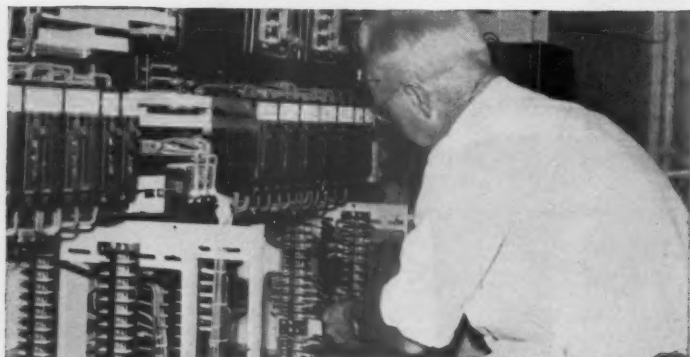
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DENSHEATH®-Insulated 600-Volts	Thermoplastic cable. Excellent moisture and chemical resistance. Long-aging.		
Anaconda Type PND® Polyethylene-Insulated-Nylon Conductor Cover 600-Volts**	Dependable chemical and abrasion resistance. Small diameter. Long-aging.	General-purpose control requirements where space is a limiting factor.	Installed aerially, in conduit or underground in ducts.
Polyethylene-Insulated 1000-Volts	Peak moisture and chemical resistance. Heavy insulation thickness. Long-aging.	Station control requirements.	Installed aerially, in conduit, underground in ducts—or buried directly in earth.
®NIPCEA voltage rating is 300 volts. ®Trademark. Lead sheaths furnished on rubber-insulated control cables if requested. Interlocked armor available for all types of control cable.			

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'Worst' car shortage coming up?p. 9

The decline in new car orders, coupled with a decline in car maintenance to "far below normal" levels, could produce a freight car deficit of staggering proportions when business returns to normal, warns the Pennsylvania's Bevan. A government car-leasing agency, he thinks, would provide a way out of the dilemma.

'Low' Seaway tolls proposedp.10

Public hearings will be held on the suggested tolls beginning August 6. The levies, proposed jointly by U. S. and Canadian bodies, may not meet carrying charges.

NYC film captures RR dramap.15

Produced at a cost of around \$100,000, "The Big Train" is a half-hour color movie that is giving viewers a dramatic, camera's eye view of the inside operations of a big railroad.

Today's hot box debatep.17

"No. 1 problem facing railroad mechanical departments." That's what most railroad officers say about the hot box headache. Money, as usual, is the key to the problem. How would you spend your railroad's money to eliminate hot boxes and the costly service interruptions they lead to?

What I learned about Russian railroadingp.26

Soviet railroading may be more like our own than that of most other countries. So says Railway Age Publisher Lewis, just back from almost 6,000 miles of travel on Russian railroads. Here, in photographs and text, are his observations about the similarities, and differences, between U.S. and Russian rail operations.

This 'piggyback' fits any flat carp.30

Pilot models of a new piggyback idea engineered for maximum flexibility will be on public display for the next six weeks. This latest TOFC idea is a container that requires no special flat car fittings. It can be moved by rail, truck, ship or air, and is freely interchangeable.

24 hours faster to Californiap.34

Here's the story behind the recent speedup of westbound freight schedules. Shipper reaction has been good, and the new schedules are expected to improve the railroads' competitive position.

Two-in-one busp.41

At least three railroads are using a new type vehicle to handle both passengers and freight. Called "Cargocoaches," most are used in substitute service.



**YOUNGSTOWN'S combination of
sliding flush and corrugated doors
materially enhances the
utilization of box cars**



THE YOUNGSTOWN STEEL DOOR CO.

CAMEL SALES COMPANY • CAMEL COMPANY LIMITED
Cleveland • Chicago • New York • Youngstown

Week at a Glance CONT.

Current Statistics

Operating revenues, four months	
1958	\$2,983,507,940
1957	3,464,282,646
Operating expenses, four months	
1958	\$2,483,864,167
1957	2,714,611,018
Taxes, four months	
1958	\$280,142,026
1957	364,266,686
Net railway operating income, four months	
1958	\$121,538,857
1957	295,635,763
Net income estimated, four months	
1958	\$48,000,000
1957	224,000,000
Average price 20 railroad stocks	
June 17, 1958	78.74
June 18, 1957	91.33
Carloadings revenue freight	
Twenty-three weeks,	
1958	12,421,984
Twenty-three weeks,	
1957	15,614,777
Average daily freight car surplus	
Wk. ended June 14, 1958	86,707
Wk. ended June 15, 1957	26,230
Average daily freight car shortage	
Wk. ended June 14, 1958	371
Wk. ended June 15, 1957	1,455
Freight cars on order	
June 1, 1958	30,386
June 1, 1957	97,006
Freight cars delivered	
Five months, 1958	27,138
Five months, 1957	43,034

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IC bounces back from disasterp.50

The quick recovery of the Illinois Central from a tank car blast that killed two crewmen and unnerved a town of 1,500, offers new proof of the resiliency of railroads.

You ought to knowp.60

To extend its coverage of the industry, Railway Age this week introduces a new department—a quick-reading condensation of late developments in an increasingly-busy field.

The Action Page—Are working rules important?p.62

An industry beset with competition, as railroads are, cannot hope to prosper if forced to incur wasteful expense. Unionists, as well as railroad owners, could benefit from economies effected by changes in working rules.

Short and Significant

Presidents of two major rail unions . . .

are not seeking reelection for new terms. The pair: T. C. Carroll, head of the Brotherhood of Maintenance of Way Employees since 1947; and Roy O. Hughes, president of the Order of Railway Conductors and Brakemen since 1950. H. C. Crotty, assistant to the president, was elected to succeed Mr. Carroll. Mr. Hughes' successor, it's reported, will be named this week.

The New Haven isn't bankrupt . . .

and isn't going to be. That was NH President George Alpert's reply to a report that the road has assets of \$28 million and liabilities of \$37 million. "Thoroughly ridiculous," said Mr. Alpert of the report of a commission set up by the Connecticut legislature to study railroad problems. He promised figures to refute the commission's warning that the NH faces bankruptcy within a few months.

NYC will inaugurate Flexi-Van Service . . .

between the Albany-Troy-Schenectady area and Chicago June 24. The move marks the first expansion of the service, which New York Central introduced between New York and Chicago April 16. State and local officials will attend an inaugural demonstration at the Central's Bull Run Yard in Albany June 23. Flexi-Van trailer units glide from their highway wheels onto specially designed rail flatcars in four minutes.

Chicago, Aurora & Elgin wants . . .

to stay in the freight business and even hopes for a 25 to 30 per cent increase in revenues (which hovered around \$70,000 in April and May). The road will seek dismissal of an earlier plea for permission to discontinue freight service. Meanwhile, studies will be started looking toward possible resumption of passenger service. (RA, June 16, p. 46.)

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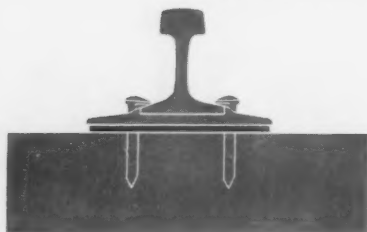
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SANDY LOCATIONS • ALL OTHER AREAS WHERE TIE LIFE IS SHORT OR
REPLACEMENT COSTS HIGH



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'Worst' Car Shortage Coming Up?

With maintenance "far below normal" and new car orders down, the Pennsylvania's Bevan fears that the railroads may be caught short when the upturn comes. Suggested solution: a government car-leasing agency.

The nation may face the worst freight car shortage in its history when business gets back to normal, a leading industry spokesman warned last week.

David C. Bevan, the Pennsylvania's vice-president—finance, told the New York Society of Security Analysts that the car shortage threat was posed by two factors:

1.) Lack of capital to buy new freight cars. He estimated that the industry as a whole actually had a working-capital deficit "on a realistic adjusted basis."

2.) A decline in freight car maintenance to a level "far below normal." Mr. Bevan noted that in April the railroads experienced the sharpest increase in bad order cars in any month since July, 1949.

On May 1, he pointed out, Class I railroads reported 116,000 cars or 6.6 per cent of their total fleet in bad order. This, he said, was 9,500 more than a month earlier, 26,000 more than on January 1, 1958, and 40,000 more than in May 1957.

His conclusion:

"As a result of the current condition of equipment and the inability to make commitments for new equipment at this time, we estimate that when business starts to turn upward, if it should reach 1956 volume in a relatively short period of time—and I am speaking of six to eight months after the first upturn is indicated—we believe that this country may have possibly the worst car shortage in its history."

One way out of this dilemma, suggested Mr. Bevan, would be the establishment of a government agency to acquire rolling stock and lease it to the railroads.

Bills are now in both the House and the Senate to set up such an agency—but the Pennsy vice president conceded that the industry "realistically" expects no final action by this session of Congress on the proposal.

Mr. Bevan made these other points:

- The current business slump qualifies as a full-scale "depression" for the railroads, and "the roughest period may still be ahead of us."

- In what may turn out to be the worst year in its history, the Pennsylvania is operating with the smallest work force on record—80,000. In the first four months of this year, the road reported a net loss of \$19,628,918.

- Annual wage hikes not geared to in-

creased productivity constitute a threat to the railroads and "all American industry."

- Consolidation of Class I railroads into "10 or 15" big systems may be one of the long-term solutions of the industry's problems. In connection with this, he said he was "optimistic" about current studies looking to a possible merger of the Pennsy and the New York Central. He added that if a decision to merge was reached, the move would be accomplished much faster than many people now expect.

Mr. Bevan explained the Pennsy's debt reduction program in some detail, noting that "during the past five years the net reduction aggregates \$182 million and we

anticipate that by the end of this year this figure will be over \$200 million."

He said the debt reduction had been accomplished largely through meeting current maturities.

"The amount of voluntary debt reduction, if it can be called that, has been relatively small," he said. "Actually, we do not consider it voluntary debt reduction but rather dictated by the necessity of bringing down to manageable size large near-term maturities."

"For example, our \$49 million of non-callable Consolidated Mortgage 4½'s of 1960 as of the end of 1957 had been reduced to \$39 million. We plan to cut



More Commuter Cars Like This, IF . . .

The Pennsylvania unveiled the first of its half-dozen new Budd-built Pioneer III M-U commuter cars (above) in Philadelphia last week. But Pennsy President J. M. Symes indicated they may also be the last—for a while, at least. Reason: to replace all existing equipment with these new luxury cars would cost \$36 million. "Arrangements

should be worked out with local governments whereby the railroads will operate commuter service as their agent," said Mr. Symes. Any loss would be made up by the government. More cars like the Pioneer III's, he concluded, can come only when the big commuter deficits are erased. Next week: a detailed Railway Age report on Pioneer III's.

these further by 1960 to \$35 million, and then it is anticipated that they will be refinanced through the issuance of additional debt by Pennsylvania Company, a 100 per cent owned subsidiary. . .

"We have also gradually reduced the \$125 million of General Mortgage 4½ per cent bonds, which are non-callable and due in 1965, to a present level of \$80 million. The amount of these, if we are successful in maintaining the program to which we have adhered during the last five years, should be reduced to approximately \$40 million by maturity, at which time we expect to refinance this amount through a new blanket mortgage which from that time on will constitute the main debt vehicle for financing of the Pennsylvania Railroad System."

'Low' Seaway Tolls Proposed

Proposed tolls for the St. Lawrence Seaway have been issued by United States' St. Lawrence Seaway Development Corporation and Canada's St. Lawrence Seaway Authority. The agencies are in agreement, and the Corporation will hold public hearings on the proposals in Washington August 6.

Immediate reaction was that the traffic estimates may be on the optimistic side—and, if so, the proposed tolls would not meet carrying charges.

Main features are these:

For each passage through the entire seaway—Montreal to Lake Erie: 6 cents per gross registered ton of the vessel, plus

42 cents per ton of bulk cargo and 95 cents per ton of general cargo.

For each passage between Montreal and Lake Ontario: 4 cents per registered gross ton of the vessel, plus 40 cents per ton of bulk cargo and 90 cents per ton of general cargo. For partial transit of the new facilities between Montreal and Lake Ontario, where there are seven locks, the charge will be 15% of the applicable toll for each lock transited.

For each passage through the Welland Canal only: 2 cents per registered gross ton of the vessel, plus 2 cents per ton of bulk cargo and 5 cents per ton of general cargo. In the Welland Canal, a partial transit would be assessed 50% of the toll irrespective of the number of locks used.

Vessels carrying passengers would be charged 50 cents per passenger for each lock transited between Montreal and Lake Erie, in addition to the vessel charge.

The tolls on cargo would be on the basis of 2,000-lb. tons.

The proposed tolls were recommended by U.S. and Canadian tolls committees. The committees think they should be sufficient to meet "all financial requirements as the anticipated traffic develops." The requirements they have in mind are operating and maintenance costs, and interest and amortization charges on the basis of a 50-year amortization period.

The committees' traffic estimates are that 25 million cargo tons will move through the new portion of the seaway during the first year of its operation; and that this will gradually rise to 50 million tons by 1968. The first 10 years of operation is considered a "developmental period" during which "there may not be sufficient revenue to meet all the annual financial requirements." Annual revenues of the subsequent 40 years are expected to compensate for this as well as meeting requirements for those years.

Watching Washington *with Walter Taft*

● **ONE ICC MEMBER'S VIEW** of the Smathers bill's rate-freedom provision is that it would not make a substantial change in rate-making power the commission already has. That view has been expressed by Commissioner Minor who emphasizes that it is his own—not necessarily the commission's. He states it while noting his awareness of the fact that rules of statutory construction ordinarily hold that an amendment to existing law is "presumed to accomplish some purpose."

THE RATE-FREEDOM PROVISION, identical in the Senate-passed Smathers bill and in the House's pending Harris bill, would prohibit the commission from holding rates to a particular level to protect the traffic of a competing mode of transportation. This prohibition, however, is modified by a softener which stipulates that "due consideration" be given to the objectives of the National Transportation Policy.

THIS IS CONSISTENT, as Commissioner Minor reads it, with the position already taken by the commission. He goes on to contend that the commission has not been requiring carriers to maintain rates at levels which protect competing modes—"except where compelled to do so in discharge of its responsibilities under the . . . National Transportation Policy."

MERE AFFIRMATION of principles which have been applied by the commission is thus what Mr. Minor thinks would be the result of the amendment. He does not think it would end consideration of factors other than the effect of proposed rates on the movement of traffic by carriers proposing them.

● **TRUCK-LEASING ARRANGEMENTS** for shippers will probably be eased. The ICC is proposing to change its leasing rules which now provide that only contract carriers may lease vehicles without drivers to shippers. There is a further provision requiring that each lease be approved by the commission.

EASING PROPOSAL would authorize common-carrier truckers to become lessors. It would also remove the requirement calling for specific commission approval of each lease contract. Thus it would permit any regulated trucker to rent equipment to shippers—provided the rental arrangement did not result in rebates, concessions, "or other unlawful practices."

PRESENTATIONS in support or opposition to the proposal may be filed with the commission on or before July 15. The commission's present plan is to decide the matter on the basis of such presentations—without hearing.

Soviet Union Building 'Automatic Train Engineer'

The Soviet Union claims that the "first completely automatic train engineer in the world" is being developed in Moscow.

Deputy Premier Iosif I. Kuzmin unveiled plans for the robot train in a speech before the All-Union Conference on Complex Mechanization and Automation, according to press reports. He said the "automatic engineer" would keep trains on schedule without any human help.

The idea of robot trains is not new. Three years ago, in France, an electric locomotive under remote radio control pulled a five-car train from Paris to Le Mans. In December, 1955, Union Switch & Signal conducted a successful experiment in remote control on the New Haven.

In addition, both German and U. S. railroads use remotely-controlled engines for certain classification yard chores.



Where railroad progress is cast in steel....

Today—more and more
railroads order Commonwealth cast steel
underframe ends for new or
existing freight equipment



One-piece cast steel underframe ends decrease maintenance costs and "in shop" time on box cars, refrigerator cars and other types of freight equipment by eliminating the causes of most underframe failures. Integral body bolsters, draft gear stops, strikers, coupler carriers, center fillers, center plates and side bearing pads provide many advantages for new or rebuilt cars.

- eliminate body bolster failures
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- simplify car building and repairing
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- resist rust and corrosion
- meet AAR code for interchange

Here is a proved way to get longer freight car life with reduced upkeep costs—now in service on many progressive railroads.

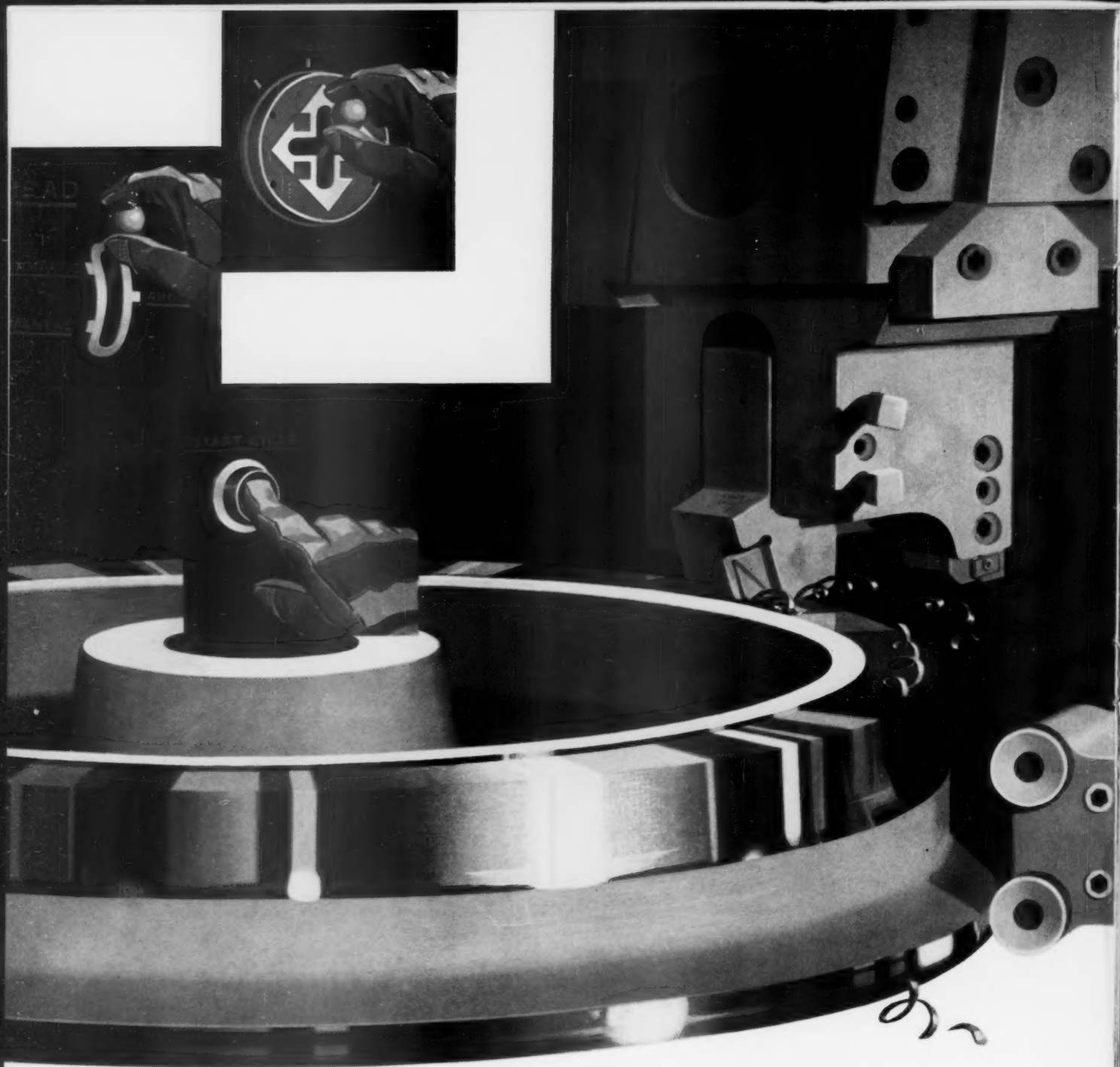


In rebuilding an existing box car, a cast steel underframe end is readily fitted into place.

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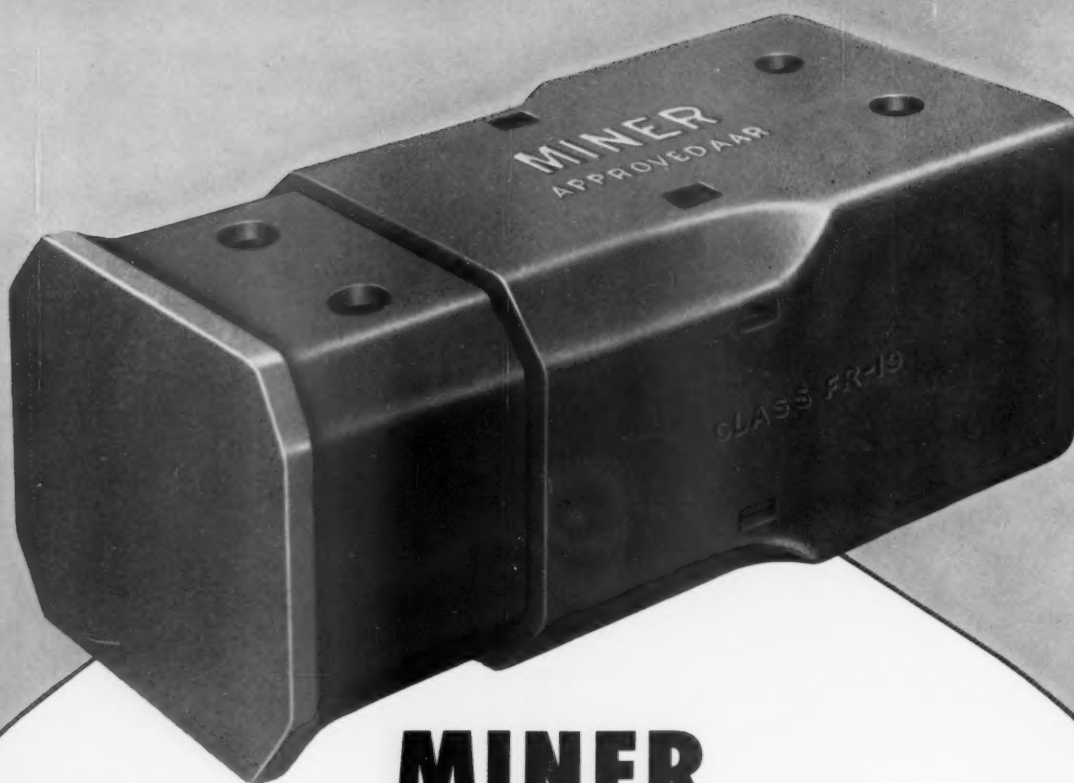
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CLASS FR-19 RUBBER DRAFT GEAR

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SPECIFICATIONS

Length..... $24\frac{5}{8}$ inches
 Width..... $12\frac{1}{2}$ inches
 Depth.....9 inches
 Travel..... $2\frac{3}{4}$ inches rated
 Rated capacity.....45,135 foot-pounds

Sectional
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Half-hour color movie gives viewers the inside story of a big railroad.

"The Big Train," a half-hour color film, is the New York Central's newest weapon in the fight to spur railroad legislative reforms.

Some 100 prints of the film will be released next month for distribution to voting-age audiences—universities, service clubs, PTA's—in states served by the Central. This month it is being shown to all 70,000 Central employees.

The movie opens with a sequence of shots—industrial smokestacks, quarries, iron mines, wheat fields—dramatizing America's dependence on the railroads to package and move its wealth.

It takes the viewer to the Central's Cleveland Research laboratory and shows him how scientists cut costs with test tubes. Example: shaving one cent from the cost of a gallon of engine oil saves the railroad \$2,000,000 a year.

The viewer sees automation at work on the Frontier Yard in Buffalo, N. Y., then follows a run of the Chicago-New York "Early Bird" from loading to unloading.

Shots of a tax-supported airport and a government-dredged waterway are followed by an appeal—by NYC President Alfred J. Perlman—for a fairer competitive climate for the railroads.

The film, which cost in the neighborhood of \$100,000, was made by MPO Productions, Inc. It was eight months in the making. A winner of the two Venice and two Edinburgh Film Festival awards, Victor O. Solow, produced, directed and photographed it.

Modern Talking Pictures, Inc. will distribute the film in Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maine, Massachusetts, Michigan, Missouri, New Hampshire, New Jersey and New York.

Mr. Perlman's cards-on-the-table appeal is a departure from the usual in industrial films for general audiences, an MPO spokesman explained. Ordinarily such films aim at good will rather than action; this one is designed to bring forth letters to Congressmen. It will be promoted by direct mail to groups of organized voters, and by calls of salesmen to film libraries in the states where "The Big Train" is to be shown.



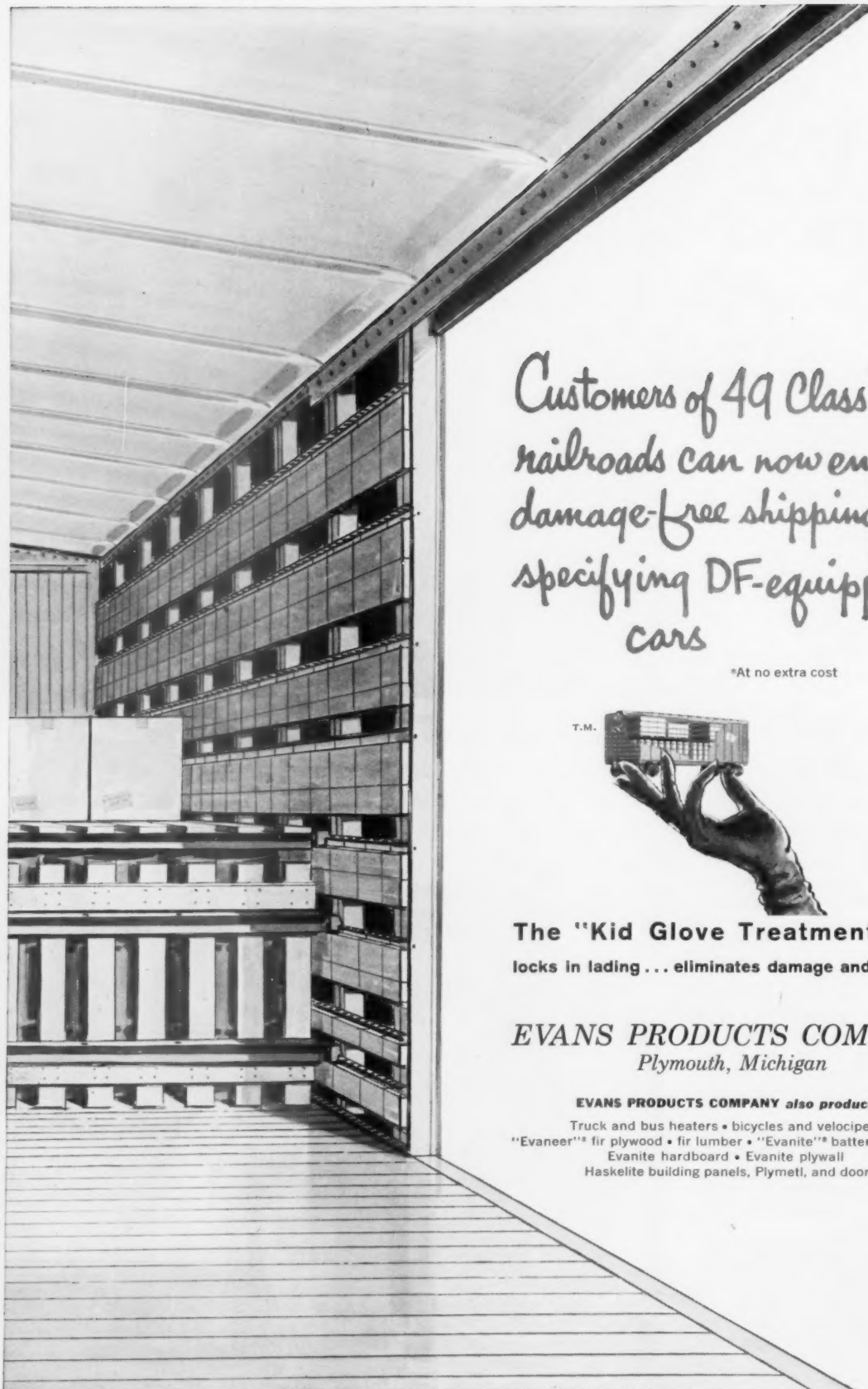
Central President Alfred J. Perlman in a stage-set railroad car. The rest of the film was made on the actual scene of the action portrayed.



Producer Victor O. Solow sets up his camera in the nose of a GM diesel locomotive to film the running rails as the Early Bird speeds across country.

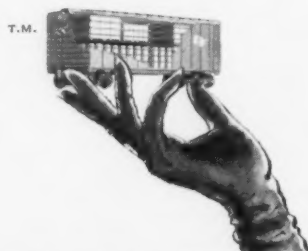


Cameramen get a bird's eye view of New York Central's Early Bird from a signal bracket mast. This is a typical example of photography problems.



*Customers of 49 Class I
railroads can now enjoy
damage-free shipping* by
specifying DF-equipped
cars*

*At no extra cost



The "Kid Glove Treatment"^{T.M.}...
locks in lading ... eliminates damage and dunnage

EVANS PRODUCTS COMPANY
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EVANS PRODUCTS COMPANY also produces:

Truck and bus heaters • bicycles and velocipedes
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Evanite hardboard • Evanite plywall
Haskelite building panels, Plymetl, and doors

Today's Hot Box Debate

No longer is the discussion whether
—now it is which, when and how.

The hot box debate centers on the solutions. There is agreement that the hot-box penalty is heavy. The costs of interruptions, unpredictable delays, and derailments in today's freight-train schedules are high—in time, money and traffic losses.

The hot-box problem is not a new one. More than fifty years ago it was a major subject of discussion. It has been the perennial favorite topic of mechanical department officers and associations every year since. A large volume could be made of the speeches and reports on hot boxes published by Railway Age and its affiliated magazines since the turn of the century.

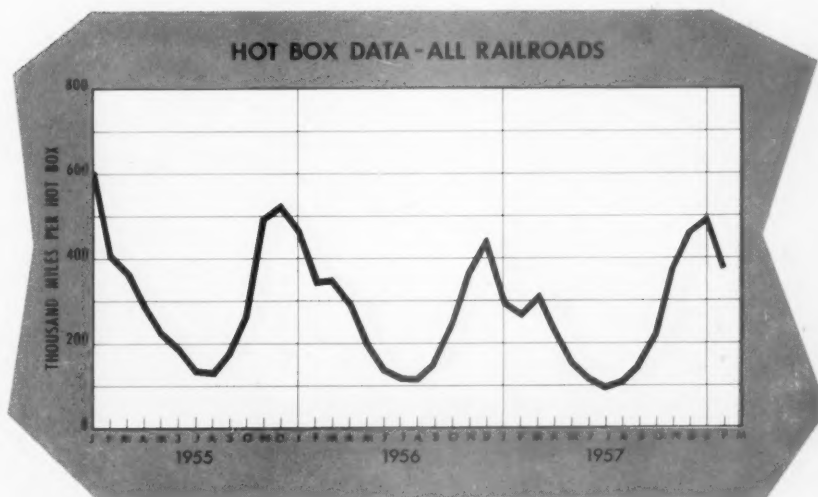
While the problem is not new, it has assumed front-rank importance in the last ten years. Most railroad officers give it the number one position when naming major issues confronting the mechanical department. New motive power, improved roadbeds and tracks, C.T.C. operation, and operating changes have all contributed to placing it in this top spot.

Dependable diesel locomotives have focused attention on any weaknesses inherent in the trains they haul. Dieselization of nearly all roads since the war has eliminated coal, water, and ash-cleaning stops and the opportunities these stops offered for inspection and cooling of heated bearings. Diesels have made possible longer trains operating at higher speeds. Trains of 100 to 150 cars, operating at passenger-train speeds, are common. Today, one hot-box will stop 400 to 600 pairs of wheels from turning. One burnt-off journal in these long trains may cause a major disaster.

The effects of the 1956 Mechanical Division action outlawing waste packing by 1960 demonstrates the size of the problem. Compliance with this requirement promises to be about a \$75,000,000 item when it extends to all cars.

Economics is the key. The problems are those of spending capital and operating funds to the best advantage. Today's squeeze on cash, either for running or improving the railroad plant, may delay and alter the solutions. Obvious answers, no matter how logical and readily justified, may be put off at the expense of overall railroad efficiency.

(Continued on page 20)



Constant Concern

Yearly swing from high mileage per hot-box in winter to poor performance in summer is duplicated annually. These are only those hot boxes which involve setting cars out of trains between terminals. Railroads have intangible schedule disruptions to assess along with measurable overtime, equipment per diem and possible damage. Lubricators tend to improve and smooth this performance.

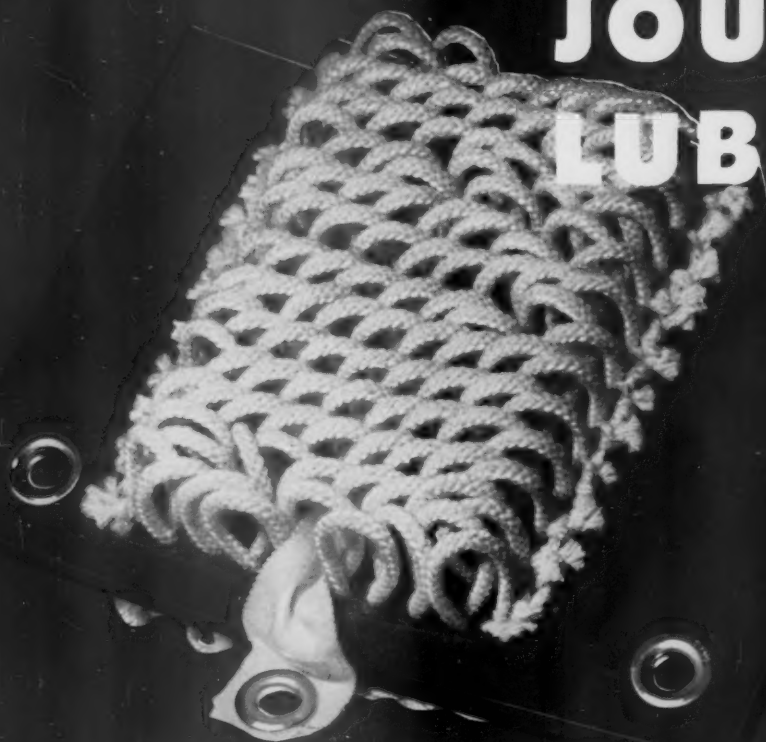


Delay or Derailment

Almost half of \$52,000,000 damage to railroad property due to ICC reportable accidents in 1956 was caused by equipment failures. One-third of these failures involved journals. Short of this complete destruction, disruptions of orderly train flow caused by journal bearing troubles are increasingly important as American railroads shrink their multiple-track territories.

Announcing

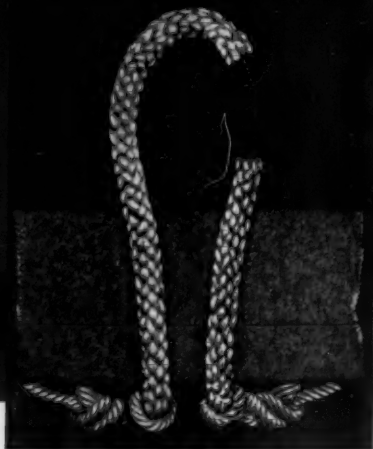
JOURNAL LUBRICATOR



cool-pak[®]

...WITH SUPER-RESILIENT, OIL-THIRSTY WICKS

ASSURES CONSTANT FLOW
OF OIL TO THE JOURNAL



Sectioned view with loop cut away
to show stainless steel center core

**forecasts new performance records
... lower cost per car per year!**

Created after nearly three years of research and experimentation—Cool-Pak[®] is a major breakthrough in journal lubrication. Cool-Pak is all-new—in materials, design and construction. In fact, its construction is a complete departure from conventional lubricators—utilizing scientifically-designed resilient wicks for instantaneous oil delivery.

Cool-Pak has limited approval for test by the A.A.R. for interchange service. Road tests from Texas to Canada give promise of shattering all previous performance records in long life and dependable journal lubrication mile-after-mile, year-after-year, and in all kinds of weather.

NEW DIMENSIONAL STABILITY—Two layers of wool felt provide a superior oil reservoir. The felt has durability to withstand impact. And it

acts as a filter so that only clean oil is transmitted. Oil-thirsty nylon, wool and cotton wicking cables threaded all the way through the oil-saturated layers and extending 2 $\frac{3}{8}$ inches above the felt—drink up the oil and deliver it to the journal instantly and continuously.

CONSTANT JOURNAL CONTACT—The wicking cables are engineered and constructed to transmit oil over the entire length of the journal. Continuity is assured by the 21-strand, self-lubricating, stainless steel center core which holds the loops upright and provides a super-resilient, fast-recovery action insuring constant journal engagement and lubrication.

DEPENDABLE IN ALL KINDS OF WEATHER—The road tests from Texas to Canada have demonstrated that journal boxes with Cool-Pak lubricators run cooler in high temperature areas, and provide dependable lubrication in extremely cold climates. One test-report states that "Cool-Pak provides uniform pressure against the journal at all temperature extremes in the North American Continent."

COOL-PAK—PATENT APPLIED FOR

UNI-PAK CORPORATION

SWISSVALE, BOX 8302, PITTSBURGH 18, PENNSYLVANIA

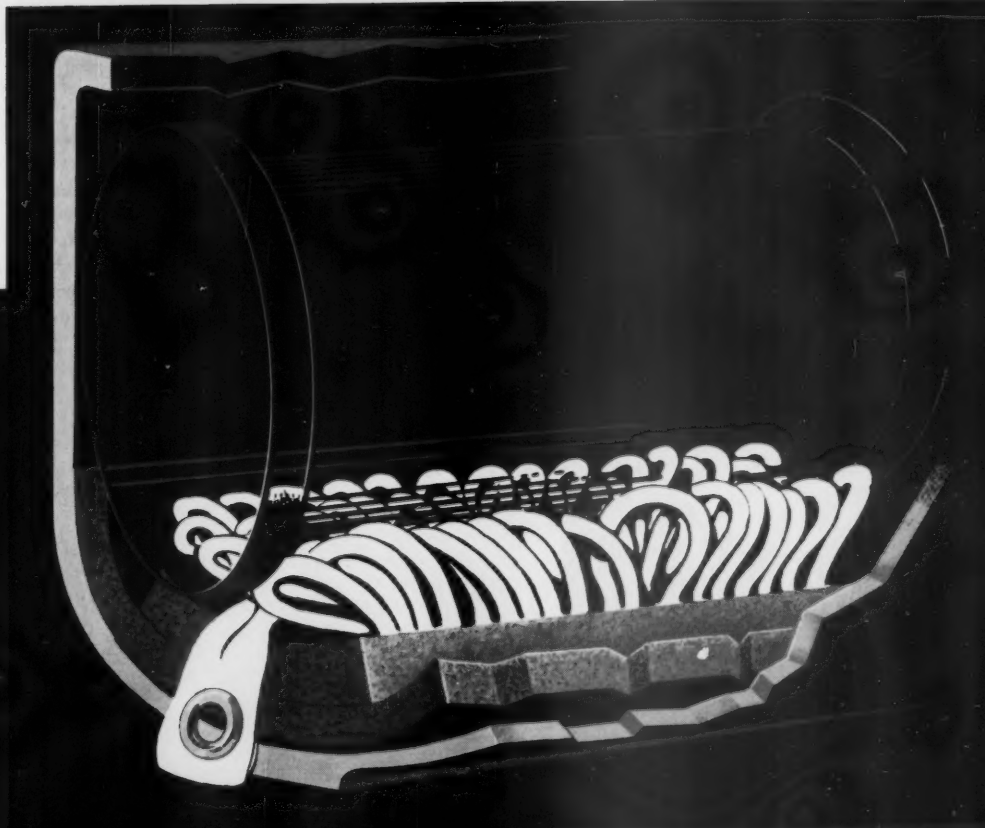
OFFICES: New York, 366 Madison Ave.; Chicago, 120 So. La Salle St. PLANT: Pittsburgh 21, Pa., 1213 Belmont St.

REPRESENTATIVES: Philadelphia, Cleveland, St. Paul, Houston, San Francisco, Montreal Canada, St. Louis, Richmond, Baltimore, Dallas, Washington, Louisville

This end view of Cool-Pak in the journal box shows how the $\frac{1}{2}$ " to 1" oil level assures oil saturation of both layers of felt, and the resilient, oil-thirsty wicks which are threaded through the felt and extend upward in rapid-wicking loops that maintain constant contact with the journal.



A cut-away view of Cool-Pak installed in a standard A.A.R. Journal box illustrates how the wicking loops provide efficient distribution of oil along the entire length of the journal. Cool-Pak contacts both collar and fillet but avoids sharp edges of both — assuring superior engagement.



Ask for New Bulletin
Gives complete engineering data. Illustrates ease and rapidity of Cool-Pak installation and removal.

cool-pak®

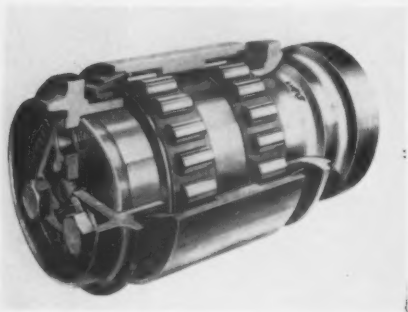
A RADICALLY NEW, THOROUGHLY
TESTED DESIGN FOR POSITIVE
JOURNAL IRRIGATION

(Continued from page 17)

Here are three basic approaches to

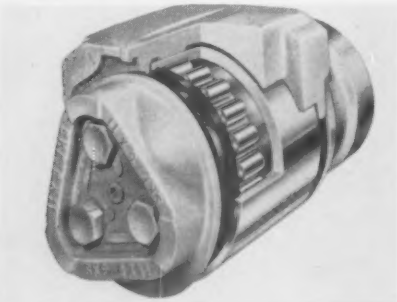
Roller Bearings

Roller bearings require the greatest initial investment. The first railroad applications were made during the 1920's. Since then, these bearings have become a virtual standard on passenger equipment and diesel road locomotives. During the present decade, their use in freight service has been expanding rapidly. They are applied only to AAR standard roller bearing axles which differ from the axle for the solid bearing. Recently, there has been a transition from oil-lubricated bearings to the grease-lubricated type.



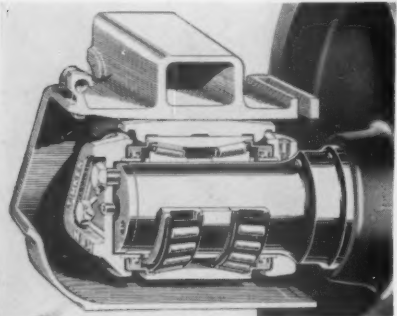
Hyatt Hy-Roll Bearings

Two rows of cylindrical rollers run on a two-piece inner race. Thrust is absorbed through a special axle cap and dust guard.



SKF General Purpose Bearing

Two rows of cylindrical rollers run on a common inner race. The unit is clamped between a shoulder collar and an axle cap.

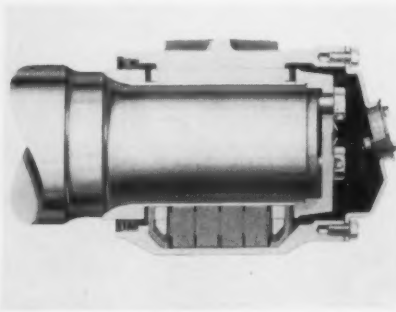


Timken All-Purpose Bearing

Two rows of tapered rollers are incorporated in this unit. Thrust is absorbed through these rollers.

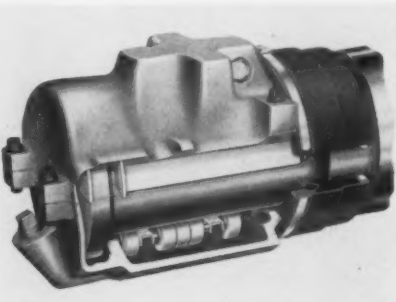
Sleeve Bearings

The newest contenders in the freight car bearing race are the sleeve bearings—solid bearings which either completely surround the axle or surround much more of its circumference than do present standard solid bearings. Because the bearing is fixed rigidly within its housing, seal problems are simplified. These bearings represent a first cost intermediate between roller bearings and solid bearings. They are lubricated with oil. Presently, only limited applications for test purposes are being made.



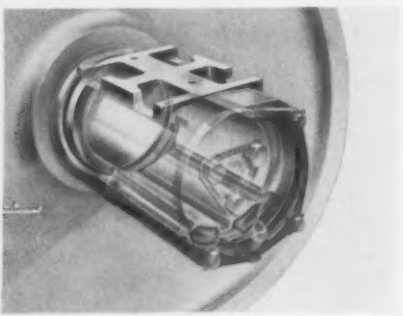
Allison Kar-Go Bearing

Aluminum sleeve bearing fits within a steel housing. Unit is applied to a slightly modified roller-bearing axle.



Clevite Sealed Bearing Cartridge

Applied to the modified standard AAR axle, this unit is composed of two 180-deg thrust washers and a 180-deg shell.



National Cartridge Bearing

Solid bearing metal casting forms the housing, bearing surface, and oil reservoir. This unit has Redipak lubricator.

Lubricators and Stops Improve

The present standard solid bearing assembly represents the lowest possible initial investment today. A major drawback of the assembly in its present standard form is the amount of servicing it requires. A major advantage is the simplicity with which it is disassembled if trouble occurs. Because it is standard, all railroads have the parts and facilities for making quick repairs.

Its easy disassembly presents one major problem. Because the bearing assembly is held together almost solely by the weight of the car resting on it, the bearing can be lifted off the axle during impacts. The same impacts, and consequent movement of the axle within the journal housing, greatly complicate the problem of providing an adequate oil seal.

Impacts also are responsible for displacing the lubricating medium. In the past, railroads met the problem by installing retainers over the loose packing and adopted a journal box with cast ridges on both sides. This was to prevent movement of the lubricating material. After tests begun about 10 years ago, it was found that a mass of loose waste might be retained effectively within a Neoprene container. The container was open at the top so that fibers of the loose packing still provided direct lubrication.

Gradual evolution of this arrangement resulted in the series of lubricating devices available to railroads today. In many such devices, the oil reservoir and pumping action are provided by materials different than those which bring the oil into actual contact with the journal.

Since last August, lubricators have been mandatory on all new and rebuilt freight cars. At the time this ruling was made by the AAR Mechanical Division two years ago, it was also voted that lubricators would be mandatory on all interchange equipment by January 1, 1960.

There seems little doubt that the lubricating devices improve solid bearing performance. However, the improved performance is secured at an increased first cost. Additional investment is not the only problem. Design inadequacies, poor cold weather performance, lack of an effective oil reservoir, and an as yet undetermined total life are all parts of the lubricator situation.

One approach to stabilizing the solid bearing assembly so neither the bearing nor its lubricating medium will be displaced during impact has been the use of journal stops. These, in effect, represent an extension of the standard bearing

a solution of the hot box problem

the Solid Bearing's Performance

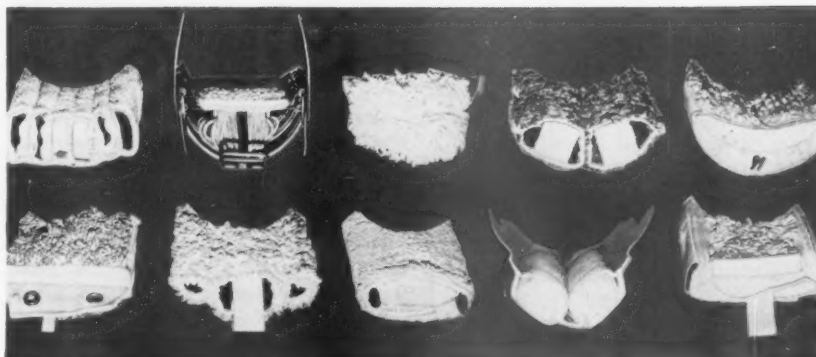
around a greater circumference of the journal. In every application, they are reported to have been found effective.

Only when the entire solid bearing assembly has been stabilized is it practicable to provide a seal at the rear (dust guard) opening. A seal under the lid of the journal box represents no particular problem. Once the box has been sealed front and back, then today's problems of excessive journal oil consumption should be on their way to solution.

A really effective seal will require vents like those used on today's package bearings.

Another approach, not completely developed, may be a change in the lubricating oil specification. Such a change might make possible successful operation of the journals through greater temperature variations. Still another possibility, currently being investigated in this country, though revealed as standard on Russian railways, would be to extend the bearing further down the sides of the journal. This provides an integral stop.

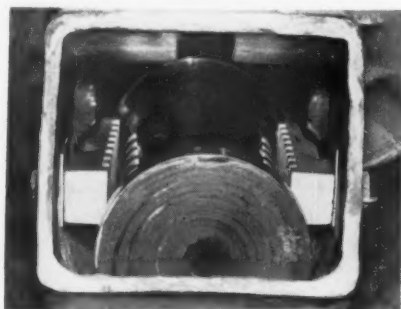
There is small doubt these developments should improve performance and reduce the servicing requirements for the present solid journal bearings assembly. But each such refinement is purchased at a greater initial cost. There also seems little doubt that a greater initial investment to reduce operating costs would be as easily justified here as it has been in the replacement of steam locomotives by diesels.



Journal Lubricators

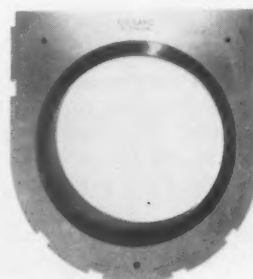
Inevitably waste packing will be replaced with lubricators. Types typical of those in service today are shown above. They vary from canvas-enclosed loose waste to

elaborate units with oil pumps. AAR has set January 1, 1960 as the date when devices of this type will be required on all freight cars in interchange service.



Journal Stops

Bearing metal blocks located approximately on the horizontal center line of the axle and bolted through the sides of the journal box serve to prevent fore and aft movement of the axle.



Front and Rear Seals

Rear journal box seal replacing present plywood dust guard is a problem for which this metal-enclosed, oil-resistant ring is but one solution. Front seal under lid is not complicated.

Use of Electronic Hot Box Detectors Increased During Past Year



C. E. Pond, general superintendent of motive power of the Norfolk & Western, emphasized last year the importance of finding hot boxes before they have had a chance to cause axle failures. During the past year, there have been a growing number of installations of the Servo hot box detectors. The unit measures infrared radiation from the trailing surface of a journal box as it passes the track-side installation. Overheated journals can be located with this equipment.



Bearing Design

Present standard AAR journal bearing design and metals have been studied to improve performance. The load distributing device—the wedge—has also been altered experimentally.

How Mechanical Officers Appraise the Hot Box Situation (p. 23) ►

Mechanical Officers Appraise the Situation

Off-the-cuff opinions of mechanical department officers on the current drive to cure the hot-box headache, as expressed in conversations with a Railway Age staff member, bring out pros and cons of the methods and equipment now being used—give a clue to future action.

The top mechanical department men are in agreement on the objective—that all practicable means must be used to eliminate the hot-box and the resulting costly delays and derailments. But they are also individualists in their thinking as shown by the following comments. [Because these were informal conversations and because no useful purpose would be served by the identification of the speakers, by-lines are omitted . . . Ed].

Lubricators give us seven times better performance than waste.

With lubricators cold weather will separate the sheep from the goats. In some pads the wicking freezes and blocks the oil delivery to the journal. Our cold weather performance is as good as waste; our warm weather results are many times better. Loss of oil is a problem but if we can win the hot box fight we can then find the oil seal solution.

We are making an excellent record with lubricators but . . .

Eventually sleeve and roller bearings will probably replace them, perhaps in five to fifteen years.

There is a place for all types of bearings.

Pad lubricators are doing a good job, better than three to one over waste. However, there is a place for all types of bearings so none will be used to the exclusion of others.

Our lubricator performance exceeds waste by six to one.

Journal stops may be a necessity to hold axle, to prevent both waste grabs and battering of bearing, and to improve dust and oil guard performance. Would like to see impact tests made of roller bearings in classification yard to see if these bearings will take shocks without chipping or failing.

In my opinion lubricators are a mistake.

It would be better to have made roller bearings mandatory, if only a relatively small number were applied each year. They would eliminate inspectors, oilers and both inspection and hot box delays. Money is the stumbling block. We should try sleeve bearings because cost gives them a price advantage. Glazing of lubricator pads will give trouble; loss of oil costly. Poor hot box performance last year due to neglect, poor maintenance work and lack of inspection time.

Oil retainers are required before we apply more lubricators.

Oil on wheel treads and rails is a hazard and the oil loss is costly. Journal stops are O.K. but the stops and their application cost too much. It is also difficult to keep them tight because of bolting to rough casting. The standard journal box is not designed for high speeds; in the past it had to operate at 25 mph and it was serviced every 100 miles. However, roller bearing costs would be high and would represent a large investment.

Our lubricator record is good.

We are getting good performance but some lubricators are better than others. I am not sure about the ultimate answer, perhaps it's roller bearings if the money is available.

Dust and oil guards the big problem.

Some sort of journal stop is needed to make an effective oil guard possible. Such a seal in a plain bearing box with the right lubricator should require oiling only once a year.

Loss of oil is serious.

The oil problem is a big one. Not one of the guards we have tried is the answer. Journal stops are probably necessary.

Might better spend money on roller bearings.

We are doubtful about the value of lubricators. All bearings, except roller bearings, are lubricated by oil and we are in trouble if free oil is lost. Roller bearings with grease will not lose the lubricant.

We are caught in a squeeze this year. Our operating officers are very disturbed about the hot box situation. Yet because of the business situation we can not spend the money to do what we know must be done to solve this problem. Waste lubrication must go but we have had to curtail the application of pad lubricators. Hot boxes and derailments are costly and we will have to spend money to eliminate both the delays and the damages. It may be that roller bearings will be the eventual solution.

Have good performance with lubricators.

We are getting a better than three-to-one ratio in respect to hot boxes with journal lubricators over waste packed boxes. We are sure that oil retainers require journal stops to make them effective.

The ultimate answer may be roller bearings. We have several hundred in interchange and we get excellent performance. Sleeve bearings are doing O.K. on the few cars that we have equipped but they are priced more than 50 per cent of roller bearing costs. They must be applied with the same tolerances or their performance is poor. Costs are a factor so we are interested in all solutions to the hot-box problem.

There is no doubt about the value of lubricator pads.

Pads have pulled us out of a bad hole. They have eliminated waste grabs, the cause of most of our hot boxes. As a matter of fact they are the reason for our hot-box record being under last year's performance. With fewer personnel in inspection and lubricating jobs we would be in tough shape, hot-box wise, if it were not for journal lubricators. I do not see them as the ultimate answer. Any mechanical department officer would be silly to say that the final solution to any problem had been reached.

now the
famous one-piece

Morton **OPEN-GRIP**

running board
gives you



The illustration shows a close-up of the Morton Open-GRIP running board flange, which has a textured, die-formed surface. It is shown being installed onto a metal rail structure. The flange is labeled "the UNI-WING flange". Below the illustration, there is a list of features and a company address.

the
UNI-WING
flange

Stronger
Fully AAR approved

The rugged, die-formed flanges of the *new* Morton **Open-GRIP** running board *aid* installation, *eliminate* welded brackets.

Withstands rough treatment without damage.

Still the famous **Open-GRIP** KASS safety features and rigid edge construction for strength where it's needed.

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NATION ENDORSES

Pittsburgh Firm Announces New Metal Discovery

PITTSBURGH, Pa. — A. M. Byers Co. put on the market today a new kind of wrought iron described as the most significant development in the history of the metal.

This description was given at a news conference yesterday by B. M. Byers, president of the Pittsburgh firm. It is the world's largest maker of wrought iron products.

The improved product, known as 4-D wrought iron, is at least 25 per cent more resistant to corrosion than standard wrought iron.

Firm Producing Corrosion-Proof Wrought Iron

A new 4-D wrought iron has been announced by the A. M. Byers Co., Pittsburgh, according to E. G. Sullivan, field service engineer here for the firm.

Byers, largest producer of wrought iron, claims the new iron has greatly superior resistance against many kinds of corrosive forces, including sea water, acid, alkali, and industrial gases.

New Wrought Iron Produced

A new "4-D wrought iron" with 25 per cent increased corrosion resistance has been brought out of the laboratory and into production by the A. M. Byers Co., William E. Weber of Seattle, Byers field service engineer, said Sunday. Weber said 4-D wrought iron is immediately available.

A. M. Byers Co Develops New Wrought Iron

Dow-Jones Service PITTSBURGH, Pa., Feb. 13. A. M. Byers Company, producer of wrought iron products, announced its metallurgists have come up with a new and improved version of standard wrought iron.

Called 4-D wrought iron, simply a marketing term used to distinguish it from the standard product, it is expected to aid substantially in reducing losses stemming from material failures caused by corrosion, B. M. Byers, president, stated. A. S. Chalfant, vice president sales, said the new product is going on the market immediately. He added that the new product will sell for the same price as standard wrought iron.



4-D PIPE — R. R. Kirkwood (left), Chief Mechanical Engineer for John Graham & Company, Seattle, checks piece of 4-D Wrought Iron Pipe now being produced by A. M. Byers Co. Looking on is Byers' Seattle Field Service Engineer, W. E. Weber.

A. M. Byers Announces Results Of Tests On New 4-D Wrought Iron

PITTSBURGH, Mar. 18. — Results of three tests new 4-D wrought iron have been announced by the metallurgical department of A. M. Byers Company, Pittsburgh. The test data documents the announcement made by A. S. Chalfant, vice president of sales, at a press conference in Pittsburgh in February at new 4-D wrought iron at least 25% more corrosion is characterized by agitation and plentiful oxygen." Test Conditions



Civil Engineer C. E. Drummond (left), examines 4-D Wrought Iron sponge ball with J. A. Cain, A. M. Byers Company southeastern division manager. Laboratory test results have shown the new metal to be much more corrosion resistant than standard wrought iron.

A. M. Byers Claims Improved Wrought Iron Less Likely to Corrode

By a WALL STREET JOURNAL Staff Reporter

PITTSBURGH—A. M. Byers Co., a producer of wrought iron products, announced its metallurgists have come up with a new and improved version of standard wrought iron.

Called 4-D wrought iron, simply a marketing term used to distinguish it from the standard product, it is expected to "aid substantially" in reducing losses stemming from material failures caused by corrosion, B. M. Byers, president, stated.

He said that standard wrought iron is already "a bulwark in the fight against corrosion." Wrought iron pipe, for instance, is used in water, waste and drainage lines, locomotive and diesel engine piping and underground airplane fueling lines, while flat rolled products go into coal chutes, bridge decking, pier protection plates, structural members and process materials tanks.

A. S. Chalfant, vice president-sales, said the new product will go on the market immediately. He added that the new product will sell for the same prices as those for standard wrought iron.

Byers Improves Its Wrought Iron

Special to World-Telegram and Sun.

PITTSBURGH, Feb. 13.—A. M. Byers Co., producers of wrought iron products, announced its metallurgists have found a new and improved version of standard wrought iron.

Called 4-D wrought iron, as a marketing term used to distinguish it from the standard product, it is expected to "aid substantially" in reducing losses stemming from material failures caused by corrosion, B. M. Byers, president, stated.

Develop New Wrought Iron

PITTSBURGH, Feb. 13.

A. M. Byers Co., a producer of wrought iron products, announced today its metallurgists have come up with a new improved version of standard wrought iron.

Called 4-D wrought iron, simply a marketing term used to distinguish it from the standard product, it is expected to "aid substantially" in reducing losses stemming from material failures caused by corrosion, B. M. Byers, president, stated.

Developed By Byers

New Wrought Iron 25 Per Cent More Corrosion Resistant

250,000 Non-Rusting Fibers Per Square Inch In Product

By W. L. RUSSELL, Press Business Editor
Out of the laboratory and into production at A. M. Byers Co. has come a new type of wrought iron is credited with increasing corrosion resistance much as 25 per cent.

The new 4-D is a result of 17 years of research. In addition to superior resistance to corrosion, new iron has greater uniformity and improved physical and mechanical properties.

This is attained by substantially increasing the carbon content of the base metal, stepping up the silicon content and using a more

4-D WROUGHT IRON

A. M. Byers Co. Markets New Kind of Wrought Iron

PITTSBURGH (AP)—A. M. Byers wrought iron, developed after 17 years of research, has greater uniformity and better physical and mechanical properties. The key to manufacture of 4-D wrought iron is removal of more oxygen from the base metal.

A. M. BYERS DEVELOPS NEW WROUGHT IRON

PITTSBURGH, Feb. 13.—(DJ) A. M. Byers Co., a producer of wrought iron products, announced its metallurgists have come up with a new and improved version of standard wrought iron. Called 4-D wrought iron, simply a marketing term used to distinguish it from the standard product, it is expected to "aid substantially" in reducing losses stemming from material failures caused by corrosion.

Corrosion Resistance Raised in Wrought Iron

PITTSBURGH, Feb. 15 (AP)—The A. M. Byers Company has announced development of an improved type of wrought iron highly resistant to corrosion. Known as 4-D wrought iron, the product is the result of seventeen years of research, the company said. B. M. Byers, president of the new wrought iron, said by removing impurities from the base metal, the refined iron purer state.

'New' Wrought Iron Developed

Production by A. M. Byers Company, Pittsburgh, Pa. of a new "4-D wrought iron" with 25 per cent increased corrosion resistance.

firm P Corros Wroug

A new 4-D wrought iron has been announced by E. G. D. Byers, Inc. The wrought iron has greater resistance to corrosion than standard wrought iron.

A. M. BYERS DEVELOPS NEW WROUGHT IRON

A. M. Byers Co., a producer of wrought iron products, announced its metallurgists have come up with a new and improved version of standard wrought iron. Called 4-D wrought iron, simply a marketing term.

4-D Wrought Iron Cuts Corrosion

Out of the laboratory and into production.



B. Rykoskey, General Superintendent of Motive Power, Baltimore & Ohio Railroad, gets a first hand report from R. G. Angell (left), A. M. Byers Co. Railroad Sales Manager, on the increased corrosion resistance of new 4-D Wrought Iron. Byers recently announced a basic improvement in wrought iron which makes the product at least 25% more corrosion resistant than standard wrought iron. Railroads are among the world's biggest users of corrosion resistant wrought iron.

A. M. Byers Making New Wrought Iron

The most significant development in the history of wrought iron metallurgy — new 4-D wrought iron — has just been announced by A. M. Byers Company. At a press conference Tuesday in Pittsburgh, B. M. Byers, president of the firm which is the world's greatest producer of wrought iron products, told newsmen:

According to E. F. Best, Byers chief metallurgist, the improved 4-D wrought iron was achieved by substantially increasing the deoxidation of the base metal; increasing the phosphorous content in relation to the other material components; and using fibrous material.

Wrought Iron More Resistant

A wrought iron whose corrosion resistance is increased 25% over standard wrought iron is available. Marketed under the name 4-D Wrought Iron, the product is the result of 17 years of research, laboratory and in-service tests. The improved wrought iron is made by increasing the extent of deoxidation of the base metal iron, slightly increasing

uniform distribution of fiber through the metal. Also because the metal is standard wrought iron, 4-D wrought iron product offered at standard prices.

Byers Develops New Wrought Iron

PITTSBURGH, Feb. 13.—A. M. Byers Co., a producer of wrought iron products, states its metallurgists have come up with a new and improved version of standard wrought iron. Called 4-D wrought iron, simply a marketing term used to distinguish it from the standard product, it is expected to "aid substantially" in reducing losses stemming from material failures caused by corrosion. B. M. Byers, president

WROUGHT IRON IMPROVEMENT IS REPORTED

Out of the laboratory and into production has come "new 4-D Wrought Iron" with 25% increased corrosion resistance, A. D. Sheere, A. M. Byers Co. Pacific Coast manager, announces.

Mr. Sheere, of San Francisco, recently returned from Pittsburgh where he was given a preview of the new material. He says Wrought Iron is immediately available—at no increase in price—will save millions of dollars in corrosion losses annually in the Pacific Coast territory. According to Mr. Sheere, 4-D Wrought Iron was achieved by increasing the purity of the metal, increasing its phosphorous content and using a more siliceous alloy. Wrought iron is a component material—refined with iron silicate.

New Wrought Iron Is 25 Per Cent More Corrosion Resistant

A new type of wrought iron, developed in the laboratories of A. M. Byers Co., Pittsburgh, is now in production. It is credited with increasing corrosion resistance as much as 25 per cent. The new metal, known as "4-D" is the result of 17 years

Byers Improves Wrought Iron

Special to the Herald Tribune PITTSBURGH, Feb. 12.—A. M. Byers Co. announced today that it had developed a new kind of wrought iron, shown by tests to offer "greatly superior resistance" to corrosion. Called "4-D," the improved wrought iron was achieved by substantially increasing the deoxidation of the base metal; increasing the phosphorous content in relation to other components, and using additional quantities of silicon.

to corrosion. Mr. Sheere said, "In tests, compared with standard wrought iron, the new metal has shown a 25 per cent increase in resistance." He added, "The new metal has been produced in a standard field." William E. Byers, president of the firm, quotes mechanical engineers, as saying, "The new metal has been produced in a standard field." William E. Byers, president of the firm, quotes mechanical engineers, as saying, "The new metal has been produced in a standard field."

Using -Proof iron

Wrought iron has been produced in a standard field.



Here is news. It's about one of the most significant metallurgical advances of modern times: the increased corrosion resistance of new 4-D Wrought Iron. This improved metal provides longer service life at lower cost per year. You can get further details from the Byers representative or by writing direct: A. M. Byers Company, Clark Building, Pittsburgh 22, Penna.



INEFFICIENT USE of power and labor is not uncommon. Here one of two engines used to water passenger cars works alongside Trans-Siberian Express at a division terminal.

GAGE CHANGES at USSR border points. At Chop, interchange point with Czechoslovakian railways, Moscow-Budapest car is jacked up, while passengers sleep.



What I learned about

Russian railroading is probably more like our own than that of most other countries in the world. With relatively little briefing, American railroadmen could move right in and operate them (better, too, in my opinion).

Most Russian single-track operation is by manual block using an electric staff system. Automatic signaling is in service and being extended on most main lines. Operation is by signal indication. Coupling is automatic and pneumatic braking is

like ours. Track construction is conventional, except that rail joints are opposite instead of staggered. Whatever disadvantages this may have, in its favor is the fact that complete track panels can be pre-assembled, moved on flat cars and quickly installed by cranes.

Passenger trains are slow, needlessly so, it seems. Main line trackage is well maintained. Major routes are double-tracked and automatically signalled—often CTC-ed. Virtually all through passenger cars

are new (built since 1947), heavy and made of all-welded steel. Yet maximum running speed seems to be 50 mph throughout Russia, even on the principal lines, where 70 mph should be a snap.

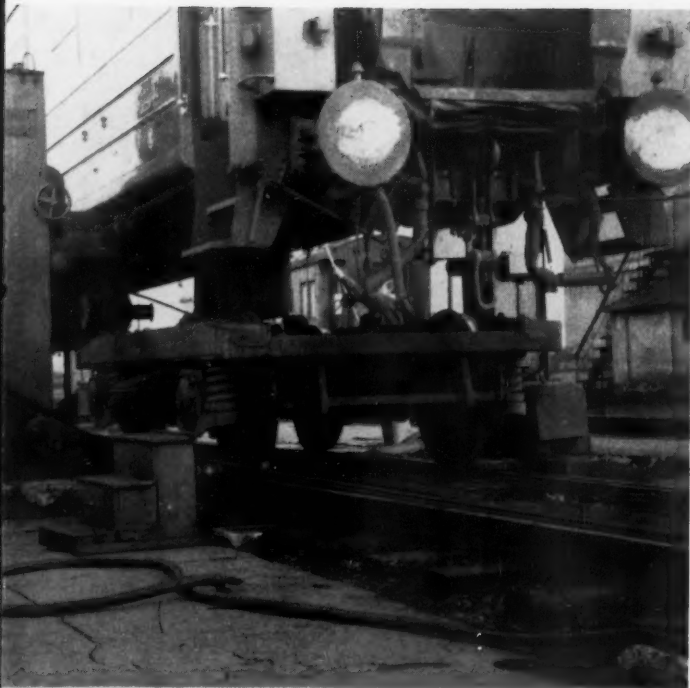
On the 938-mile run from Moscow to Odessa, for example, the best train takes 32 hr. 5 min., although the line is straight and the route is flat. There are secondary trains so that stops are few and station work limited. You feel like pushing! Yet this is an improvement. Three years ago

PUBLISHER AT WORK!

Sleeping car accommodations for the long Trans-Siberian journey are spacious and comfortable. Each room has individually controlled speaker for radio and tape recordings "piped" through train from central set, operated by a train radioman. Although there is no air conditioning, cars are constructed with a good ventilation system. Each room has an electric fan.

"It's easier to work here than at 30 Church street," says Publisher Robert G. Lewis, author of the accompanying article—"No phones!"





WIDE-GAGE TRUCKS are rolled out at border points, standard-gage trucks rolled under. Automatic couplers are replaced with screw type and brake rigging is reattached.



A NEW 2,000-HP DIESEL handles 600-ton Moscow-Peking train from Vagai to Nazyvaevskya, through Siberian steppes. Diesel units on order now total 2,250.

Russian railroading

the same train took 34 hr. 25 min. Five years ago it took 41 hr. 2 min.

Real eye-opener is the lot of the freight trainmen. Russian freights have no cabooses. Certain freight cars—maybe one out of five—have small open platforms, like the platform of a caboose, and the train crews huddle there, even in the most severe weather and northernmost climes. Most extraordinary, many of these freight train crews are women. While passenger trains are relatively slow, freight trains

are not. They always seem to work at their maximum and keep moving between terminals.

Biggest freight I saw was 90 cars, but most run about 50. This is true even in electrified territory. Limited yard and siding capacities—which the present administration inherited from the past—rather than power limitations, are probably the reason for short trains—a situation that will doubtless be corrected. Though trains
(Continued on page 29)



NEW LENINGRAD SUBWAY is operated by the railway administration. Seven-mile line soon will be extended under Neva river to the Finland railway station.



SUBWAY STATIONS are clean and well lighted. Man at right is Igor Stupnikov, Intourist interpreter. His wife is a leading ballerina.



*Railway Division Headquarters
Cleveland 6, Ohio*

*International Division Headquarters
Cleveland 6, Ohio*

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"DINNER ON THE DINER"—nothing could be finer . . . Meals are on par with best Russian hotels—service is better.



HARVEY HOUSE, SIBERIAN STYLE. Usually modest "Russkys" often wear pajamas for train travel.

(Continued from page 27)

are short, they are heavy, for there is a high percentage of loads to empty. Cross-hauling is almost non-existent. In a non-competitive economy, you wouldn't, for instance, load soap from Cincinnati to New York, and at the same time move soap from New York to Dayton.

The trade union of railway workers, I was told, is the strongest in Russia. It has 3,000,000 members. It is powerful politically, and its members are, at least relatively, well paid. They have grievances, but apparently they haven't heard about the caboose. Or maybe they think it would be unmanly to ask for such comforts. Use of manpower is efficient in some places, wasteful in others, a kind of inconsistency that one sees throughout Russia.

Passenger cars in through trains are not heated from the engine. Each car has its own thermostatically controlled coal-burning heater, fired from the vestibule. Even with severe climates this is not as bad as it sounds. Frozen train lines are unknown and cars can be parked without engines

or standby facilities. Each car has a samovar, for a Russian can't travel without tea. Each car has a porter—often female—who tends the coal fire, makes the tea and takes care of the bedding.

Most through trains run at night, and there are three classes of travel—sleeping car, soft class and hard class. Sleeping cars, providing private room space with semi-private washing facilities, are on the best runs only. There are no private toilet facilities—they are at the ends of the car—standard 12-and-1 style, but each car does have a shower. Soft class is made up of rooms each accommodating 4, on upholstered seats. Hard class is just like it sounds—cars seat 87 by day and by night provide horizontal space for 58, in tiers of three. The better trains have restaurant cars and food compares favorably with good hotels. The service is better.

Moscow has nine terminal passenger stations, each about two miles out on the perimeter. Each station has both through and suburban train services. Station facilities for each service are usually separate.



WHAT, NO POLAR BEARS? Business street in Irkutsk, south central Siberia, is almost disappointingly modern.

Commuter trains are nearly all electric.

Correction—Russia's ton-miles in 1957, reported as 680,000 millions on p. 23 of last week's issue, should have read 828,092 millions. The correct figure was indicated in the accompanying chart on that page.



PERISHABLES ARE HANDLED between major producing and consuming points in solid trains. Cars are cooled by brine

circulation, heated electrically, with power provided by diesel generators in car at center of train. Icing stops are obviated.



OIL-HYDRAULIC TRANSFER ARMS, activated through power take-off, move Railiner sideways off highway chassis.

Arms work to either side and rear arm can be adjusted longitudinally for different length containers.

This 'Piggyback' Fits Any Flat Car

Newest entry in piggyback containers combines minimum tie-down, versatile transfer unit and special trailers.

On display in Birmingham, Ala., for the next six weeks are pilot models of a piggyback idea engineered for maximum flexibility.

Pegged by its developers as a "universal" system, this latest piggyback entry is a container requiring no special fittings on flat cars. It can be moved by rail, truck, ship or air, and is freely interchangeable. It has no moving parts.

The name, Railiner, isn't new; the rest of the system is. Similar containers were tried by the IC back in 1947-48, but that experiment was dropped because of prevailing "adverse rate factors."

After piggyback's rebirth, Southern Car & Mfg. Co. was licensed by the original company. Today, the firm has added . . .

(1) A trailer-mounted transfer unit that can double as a loading-unloading vehicle in the yard or serve as an over-the-road unit if needed. The one-man control panel for transfer work is mounted

on the neck of the semi-trailer. It consists of ten four-way hydraulic valves and two air valves.

(2) A telescoping chassis for over-the-road movement or pickup and delivery. The bogey is a tandem suspension eight-wheel undercarriage that can be adjusted to fit any container, 18 to 40 ft long. Containers are side loaded, the same as on flat cars.

(3) A new approach to cut waste time at a shipper's dock. Containers can be left at dockside for loading or unloading, freeing tractor, trailer and driver for work elsewhere.

Containers in the expanded Railiner system are rectangular boxes, the shortest being 8 ft. Units up to 20 ft can be handled on a standard bob truck with a 20-ft frame. Containers over 18 ft long can be handled by the adjustable chassis.

Railiners are stressed skin design — the framing is aluminum and steel. Steel

sheet liners are built in at strategic stress points. Floor options include aluminum or wood. Wood floors have steel sections running longitudinally between each board and bolted to cross members. Lateral channels extend through the container to receive the arms of the transfer unit.

Other features of the container units include interior lighting, steel hinge rear doors and the option of side doors. To help prevent lading damage a double row of lashing rings are mounted on upright framing and are flush with inner plywood lining. As further protection, Waughmat buffers can be added to any container. Two buffers, applied to a supplemental base, will help cushion container movement in transit. Dividers along sides permit sectionalized lading.

Southern Car is planning to lease the new system as a package, with each lease, according to spokesmen, "having to stand on its own feet." Patents are pending.



READY FOR LOADING. container sits on over-the-road chassis. Like transfer unit, bogey is adjustable. A lock pin is removed, brakes set, tractor pushes or pulls chassis to desired length, and lock pin is reinserted.



CONTAINER IS RAISED to car height and lifted aboard by side loading. Transfer unit can work along roadway from either side of cars. Less than five minutes are required for tractor driver to load or unload units.



ALUMINUM AND STEEL CONTAINERS are available in sizes up to 40 ft. Shackles in side are for tying to flat car or lift by cable. Fifth wheel is mounted under container nose. Units have reinforced double rear doors.

RAILINER BIDS FOR MAXIMUM FLEXIBILITY WITH THESE EQUIPMENT "EXTRAS"



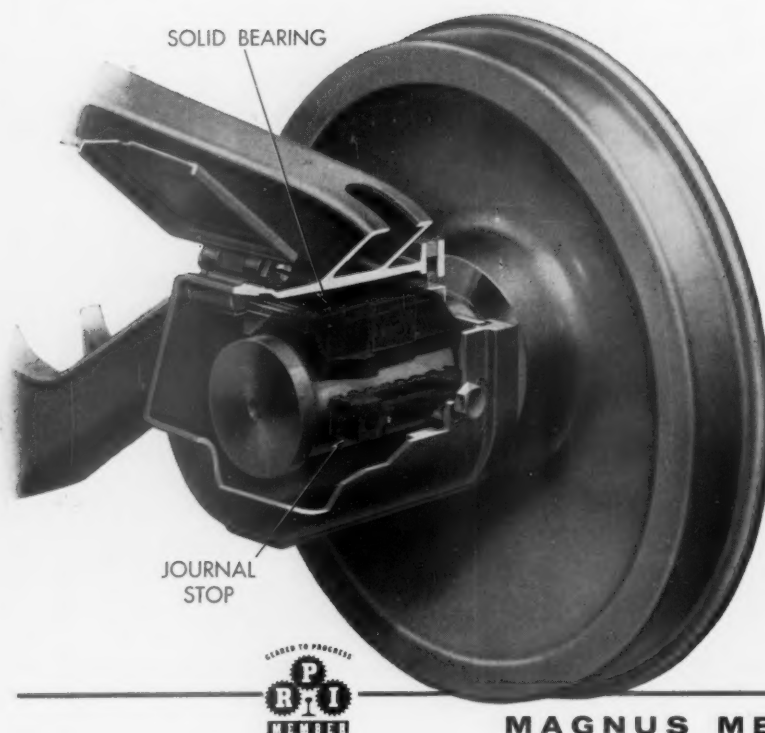
OVER-THE-ROAD CHASSIS (top) has hydraulic cylinders on front and rear bolsters to lift Railiner units. Arms of transfer unit (center) operate independently, can be tilted to side dump a load. Railiner can be deposited on posts for loading, unloading, while tractor and chassis work elsewhere (bottom).

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It's a fact...

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can cut hot boxes 90%—
save 43% on total bearing operating costs

*Overall experience proves that Journal Stops
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Dependable
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This is how much you can save every year with Magnus R-S Journal Stops—almost \$35 on every car so equipped!

*can give you the kind of bearing
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R-S Journal Stops stabilize the entire journal bearing assembly. That eliminates 90% of the hot boxes—probably even more. You cut down the service attention required. Conservatively you double bearing and dust guard life. You reduce wheel flange wear and get more miles per axle too.

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Yes, R-S Journal Stops are the low-cost answer to hot boxes. And with them you still have all the many advantages that solid bearings bring to railroad rolling stock. You can take the maximum load, make the fastest schedule. Lading gets the smoothest ride. You save excess dead weight and get the lowest possible running resistance in pounds per ton. Best of all, with Journal Stops solid bearings can give the kind of performance you want at a price you can afford to pay.

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24 Hours Faster to California

The new schedules are expected to improve the railroads' competitive position. This, in turn, should result in increased traffic as business conditions turn upward. Shipper reaction has been good.



What's the story behind the recent speedup in westbound freight schedules from Chicago, St. Louis and Memphis to San Francisco and Los Angeles? How do the new schedules operate? How were the railroads able to cut a full day from their best previous running time? Why did they do it?

These questions were posed to the 18 railroads participating in the new expedited freight service. Here are the answers.

For several months before the expedited schedules were established, the railroads were under pressure from shippers and freight forwarding companies to speed up the existing six- and seventh-morning service to the West Coast. The forwarders alleged they were losing traffic to motor carriers. A one-day reduction in freight schedules, these companies indicated, would put them in a better position to hold their traffic.

The first Chicago-California fifth-morning schedules were operated only four days a week. Trains were restricted to merchandise traffic. There were no connections for traffic originating east of Chicago. These initial schedules called for pulling freighthouses earlier and leaving Chicago at 10:00 or 11:00 p.m. Arrival in San Francisco and Los Angeles was between 4:00 and 6:00 p.m., fifth evening. Cars were spotted that evening, unloaded, and merchandise delivered the next morning (fifth morning from Chicago).

"Off and Running"

As more railroads established the new service, the merchandise limitations were dropped. And then, as one industry spokesman put it, "the horses were off and running." Actually, the four-day-a-week service, limited to selected business, lasted only about 10 days before this service was opened to all types of traffic on seven-day-a-week schedules.

Service was established providing fourth- and fifth-morning deliveries on all types of traffic through most connections and gateways between Chicago, St. Louis, Kansas City and the Pacific Coast. Then still faster service, providing 11 a.m. to 3 p.m. departures from Chicago with fourth-afternoon arrival in San Francisco and Los Angeles, was placed in operation. These day-time departures vastly improved eastern connections.

How Trains Were Speeded

How did individual railroads improve the running time of their freight trains? Each had its own problems. Time had to be cut from schedules both by reducing terminal delays and by faster over-the-road operation.

"The Rock Island started preswitching trains in Chicago to eliminate switching at Silvis yard (Rock Island, Ill.)," E. E. Foulks, assistant vice-president—operations, said. In this way, the road was able to cut terminal time at Silvis from about 2½ hours to 45 minutes.

The same process, Mr. Foulks explained, was repeated at other terminal points along the line. At intermediate points, he added, crews were changed in 10 or 15 minutes instead of one hour.

As to over-the-road train speed, Mr. Foulks said the Rock Island had this choice: Keep two diesel units on the train and take more time to ascend hills; or add a third or fourth diesel unit as reserve power so the train could operate up grades at a faster speed. The railroad added the extra power.

The Rock Island reports that a 35-mph average speed must be maintained on its Chicago-Denver run to make the 33-hour schedule. This includes terminal time. "You have to drive hard to run 1,062 miles at a 35-mph average," Mr. Foulks emphasizes. "This means averaging 39 to

40 mph between stops. That, in turn, means a train must operate a good deal of the time at 60 mph to maintain its average."

The Rock Island reports excellent on-time performance with its new schedules. During April, the train made its Denver connections every day.

"Precision planning, teamwork and top physical facilities have enabled Union Pacific to handle successfully the 24-hour speed-up in transcontinental freight service," according to E. H. Bailey, vice-president, operations.

Union Pacific reports schedule reductions up to 19½ hours on its portion of the transcontinental movement. "Shorter, faster trains and reduced terminal time have been primary factors in maintaining the new schedules," Mr. Bailey explains.

"Minimum of Switching"

Before the speedup, westbound traffic from Council Bluffs and Kansas City was handled in "maximum-tonnage trains for operating economy," Mr. Bailey went on to point out. This meant cars had to be switched in and out of trains at various terminals along the line.

Under the accelerated schedules, cars are blocked into separate trains for each of the major West Coast destination areas—southern California, northern California and the Pacific Northwest. Then these trains are operated through with a minimum of switching en route.

The Chicago, Burlington & Quincy, which operates schedules in connection with the Union Pacific, Western Pacific, Southern Pacific and Santa Fe, reports that the new automatic classification yard which it recently placed in service at Chicago has helped cut terminal time from those schedules. Now trains are blocked for through movement at Chicago, making it unnecessary to switch at Galesburg and

HEADING WEST—FAST: The Burlington's No. 67 makes connections at Council Bluffs with the Union Pacific. The train's Kansas City section connects there with the Santa Fe for fifth-morning delivery on the Pacific Coast.



FASTER SERVICING is a basic element in the new schedules.

other points. The CB&Q limits its trains to 85 or 90 cars to facilitate over-the-road movement.

R. W. Heron, general superintendent of transportation, Chicago & North Western, says: "We have added a fourth unit to our diesel locomotives on the Chicago-Omaha run. We are limiting trains to 100 cars. Local work has been eliminated. Caboose are changed at Clinton, Iowa, and Boone, with a minimum of delay."

To facilitate train movements, the C&NW does not remove cars from trains at Clinton and Boone because this would require uncoupling the locomotives. However cars destined for the UP at Council Bluffs are added at the rear end of trains when cabooses are changed.

"We are exceptionally fortunate," Mr. Heron adds, "having missed connections only once since our expedited schedules were placed in effect. This miss was caused by a derailment."

"Fastest schedule between Chicago and Council Bluffs before the speedup took 14½ hours. Today our No. 249 makes the run in 11 hours," Mr. Heron reports. Upon arrival in Council Bluffs, as soon as the road locomotives have been removed from the train, a switch engine takes the Union Pacific block and makes an immediate delivery.

"The Milwaukee Road put on more power and advanced the cut-off time for freight from Chicago to permit an earlier departure," V.P. Sohn, general superintendent of transportation, commented, adding that "This earlier cut-off time permits us to schedule our trains out of town quicker."

Both the Milwaukee trains operate seven days a week. No. 63 is a through train from Chicago to Council Bluffs, while No. 61 picks up and sets out at Savanna, Madrid and Manilla.

The Illinois Central reports that its speed-up between Chicago and Council



FASTER TERMINAL TIME and quicker crew changes are important factors in maintaining the reduced schedules. The Rock Island, for example, has cut terminal time at Silvis by more than two-thirds because of preswitching, and is making crew changes in one-quarter the time formerly required.



IMPROVED PERFORMANCE over-the-road has been gained in most cases by adding additional diesel units, limiting train lengths, or both.

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your road \$49.00
per-car, per-year?**



**YOU CAN—by specifying Koppers
Pressure-Treated Lumber in
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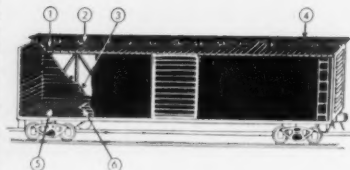


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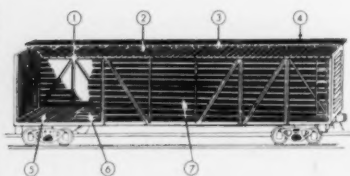
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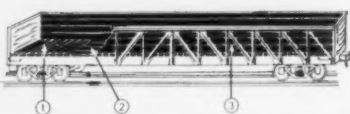
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| ② SADDLE BLOCKS | ⑤ FLOORING |
| ③ LINING | ⑥ NAILING SILLS |



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| ① FRAMING | ⑥ FLOORING |
| ② ROOFING | ⑦ NAILING SILLS |
| ③ SADDLE BLOCKS | ⑧ SLATS |
| ④ RUNNING BOARDS | |



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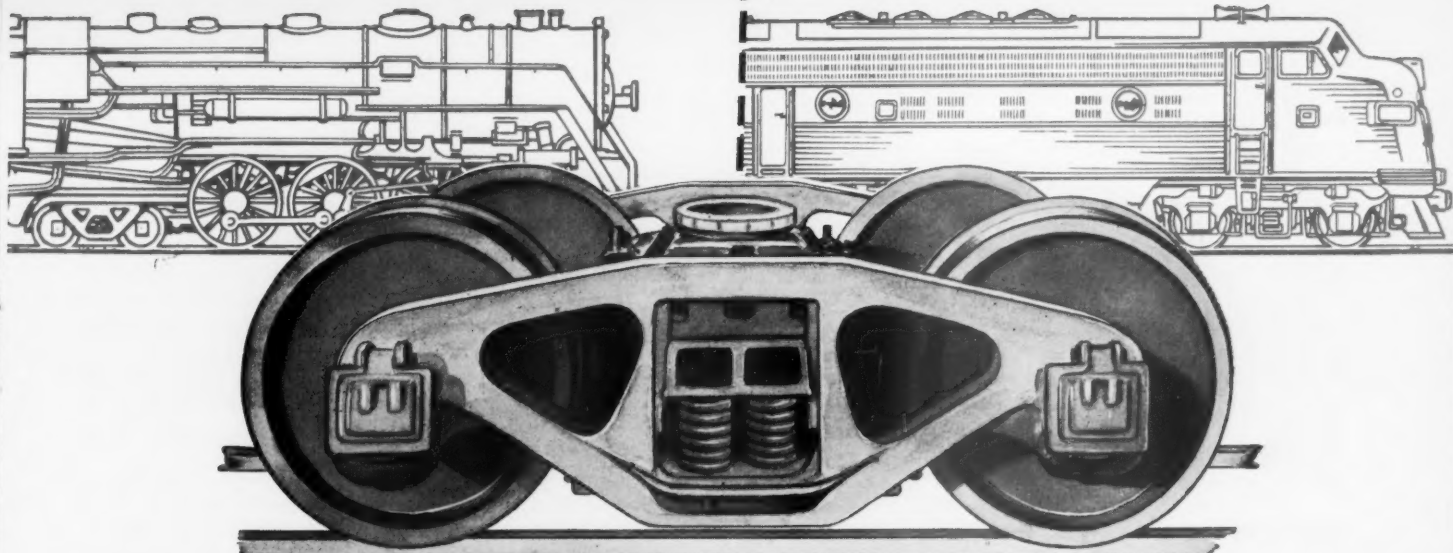
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Bluffs is primarily a result of eliminating switching en route and adding a fourth diesel unit for higher speed over the road.

St. Louis Southwestern (Cotton Belt) credits extensive advance planning, which enables the expedited trains to move through terminals in a matter of minutes, where once it sometimes took hours. Cotton Belt's BSM covers the 752 miles from St. Louis to Corsicana, Tex., in 18 hours, 24 minutes. "The trains are stopped just long enough at terminals for prescribed inspection, to change crews and cabooses, to change motive power at Pine Bluff, and to refuel at Tyler."

Employees Like It

From the operating employees' view, here's how Cotton Belt's expedited freight trains "get over the road." Yard Clerk Allen Johnson at East St. Louis says: "I've been at this work for 15 years and I don't ever remember seeing our men do their jobs with as much zip as now. The yardmaster calls these trains as soon as he knows the cars are on their way to us from connections. In many cases a train line-up is established before the cars are

even in the Cotton Belt yard."

"Better service means more business," explains Cotton Belt Conductor T. G. Acker, of BSM. Commenting on the run between Texarkana and Tyler, Tex., Conductor Acker further explains: "We don't run a bit faster than we used to; just steadier. The speed limit is still 60 mph . . . but they give us the road. It's constant good running that helps us make time."

Engineer T. H. Myers, who handles BSM west from Tyler, observes: "Good running and clear track have a lot to do with a good run . . . but, it couldn't be done without good yard movements. Why," he continues, "trains it used to take hours to handle are being put through terminals in minutes, and seldom in more than a half-hour at the most."

Why the Speed-Up

"These new schedules have been well received," says C. M. Biggs, Southern Pacific's general traffic manager in Chicago. Most important reason for establishing the new schedules is to meet highway competition, he explains. "Some transcontinental trucks with sleeper cabs

are making fourth-morning arrival on the Pacific Coast. However, this service is not always given in regular operations. Truck lines most likely give fifth- or sixth-day service. Thus, our new fourth- and fifth-morning delivery brings us into a competitive position with these truckers."

"The expedited train schedules will give us an opportunity to recover traffic now moving by highway," he adds. "In a recession period, reduction of transit time permits industry to cut inventory by one day's supply. This can amount to a lot of money in some industries."

The Union Pacific reports that shipper reaction to the faster service has been very good, but the present unsatisfactory decline in freight carloadings nationally, make it difficult to pinpoint any increase in traffic that can be attributed to the new schedules.

Unofficially, most railroads indicate there has not so far been any substantial increase in traffic as a result of the new schedules. However, the schedules are expected to improve the railroads' competitive position. This should result in increased traffic volume as business conditions turn upward.

Railroading



After Hours with *Jim Lyne*

RAIL FREEDOM IN DENMARK—I have a note from Southworth Lancaster of Boston University telling about the rate-making freedom enjoyed by the Danish railways. About 85% of their total freight traffic "moves on low special rates which are contract arrangements usually contingent on the offering of a definite amount of freight in a given period."

These rates need not be published, and can be made effective on short notice. The railways may engage in the truck or bus business at will, without special permission.

In Britain, in France, in the Netherlands—the railways are permitted to make pretty much whatever rates they please. Where government owns the railroads it seems to treat them a great deal more liberally than the US treats its privately owned railroads. Support for private enterprise principles evidently is not as deep an article of faith in the US as some people believe.

WHERE CREDIT IS DUE—I've seen a lot in the daily papers about the amount of mail for congressmen that the proposed railroad legislative program has engendered. I mentioned the special issue of the C&O's Chessie News. Now along comes the ACL with an illustrated educational 20-page pamphlet entitled "Your Blueprint for Survival." Along with the pamphlet is enclosed a lapel button reading: "I have, have you?"—the question referring to writing to legislators.

Other railroads are exerting themselves valiantly to the same effect. But it isn't just the railroads—the suppliers are doing the same thing. For example, I have before me a letter "stuffer"—asking the reader to write his congressman, and telling him why. This "stuffer" has been included in all correspondence going out from the car and foundry division of ACF In-

dustries, for the past several weeks.

I know of one big supplier who has two important officers who have spent virtually full time for many weeks in making known the issues of the legislative program to influential people.

COMFORTABLE OLD CARS—I've had occasion recently to ride a roomette car, rebuilt from an old-style standard Pullman—and I was struck with the comfort of it. Aside from the lights which weren't quite bright enough, this car is good enough for anybody—and the cost, above the fare, was no more than for a hotel room.

I believe the railroads are more modest than they need be about some of their older equipment. A lot of it is comfortable and easy riding—nothing deserving any apologies.

Aren't the airlines taking a big gamble in going in for jets the way they are — and isn't it just possible that one of these days their costs and their traffic growth are going to level off? Not that I've got anything against the airlines, either—I think they do a splendid job. So good, in fact, that there's no longer any good reason to finance their terminals and safety controls at public expense.

I suspect they've got the upper hand the way they have, largely because their fare structure is often below that of the railroads. It's the other way around in Europe and the result is that, over there, the bulk of travel is by rail.

BRITISH CORRESPONDENT—A British railway officer — especially interested in signaling and telecommunication, and in rapid transit, would like to correspond with American railroaders with similar interests. Let me know if you fall into that category and I'll pass your name along to him.

**LOW COST MODERNIZATION
FOR CARS OF ALL CAPACITIES..**



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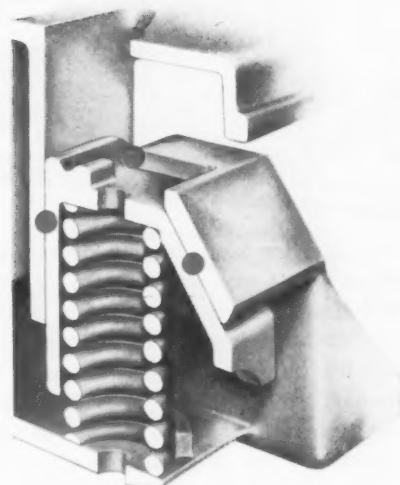
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Thermo King mechanical refrigeration offers you dependable temperature control at the snap of a switch. Just set it and forget it. It is a rugged, trouble-free unit, perfected in 20 years of production by the world's largest maker of mechanical transport refrigeration. Thermo King costs less to buy, less to maintain, and less to operate than any other type of refrigeration.

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Two-in-One Bus

New design vehicle fits need for combination unit to handle both passengers and freight.

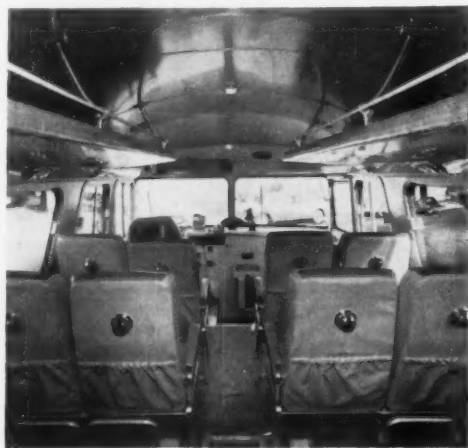


Hybrid bus carries...

At least three railroads—GN, NP and BAR—are using these combination vehicles. Most are used in substitute service. Units come 35-ft or 40-ft long. Engine options include gasoline, L.P.G. or diesel. Called "Cargocoaches," they're built by Crown Coach Corporation, Los Angeles.

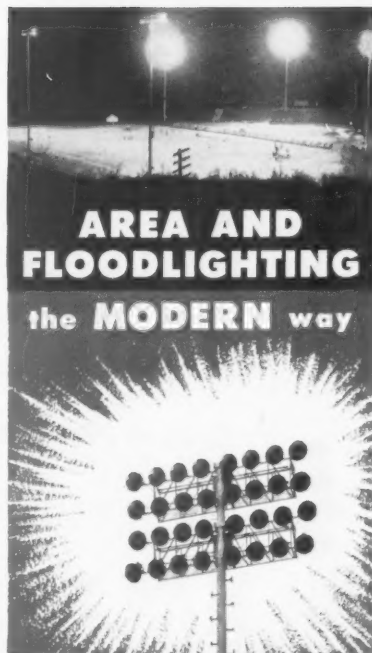
Passengers up front...

Passenger space varies with overall vehicle length. The 35-ft coach has recliner seats for 12. The larger unit can be fitted for 20. Fittings include overhead baggage racks, individual reading lights, radio and a public address system.



Freight in the rear

Cargo section runs to a maximum of 1,450 cu ft. They can be separated from passenger section by a sliding door. Full-width doors are at the rear. Metal rings snap into tracks on walls. Patented straps (Weblocks) attach to the rings to secure loading. Cargo fittings are made by General Logistics, a division of Aeroquip.



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REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted.)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1958

[illegible]

(Continued on page 44)



Here's proof that **WIPING WASTE** absorbs over four times as much oil as cloths!

...certified test report available on request

In precise, scientific tests conducted by a prominent Chicago engineering firm, cotton wiping waste and wiping cloths were compared to determine their absorptive qualities. Samples were tested under identical, controlled conditions. The carefully tabulated figures prove once and for all that wiping waste absorbs 443% as much oil as the same amount of wiping cloth! The complete report of these tests has been prepared and is available free upon request. Use the convenient coupon below.

Actually these new tests only bear out old facts already known to most users of wiping waste. Wiping waste, consisting of all new, uniform threads, is by its very nature more consistently efficient. What's more, since good quality wiping waste can be purchased at a much lower initial cost per pound than proper quality wiping cloths, waste is considerably cheaper to use.

All in all, it adds up to one thing: You'll get more efficient performance, at lower cost, by switching to cotton wiping waste.



INSTITUTE OF THREAD MACHINERS, INC.

84 Field Point Road
Greenwich, Connecticut

Institute of Thread Machiners, Inc.
84 Field Point Road
Greenwich, Connecticut
Dept. RA-2

Gentlemen:

Please send me a copy of your engineering test report on cotton wiping waste.

Name _____

Organization _____

Address _____

City _____ Zone _____ State _____

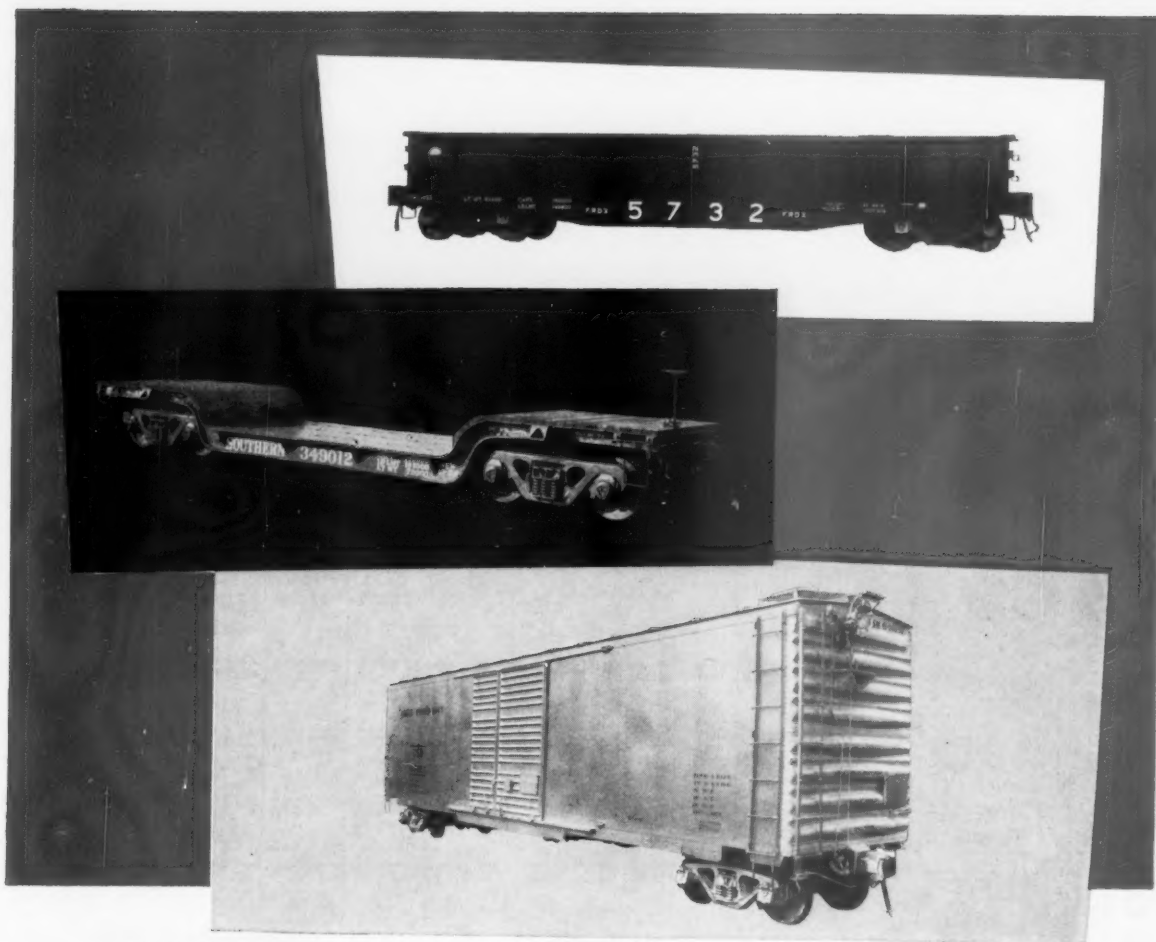
REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1959

Average freight operated per period	Name of Road	Operating Revenues				Depreciation				Maintenance of Way and Structures				Operating Expenses				Net Operating Income						
		Freight		Pass.		Total		Total		Total		Total		Total		Total		Total		Total		Total		
		1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960
236	Elgin Joliet & Eastern	2,625	3,332	4,940	269	1,100	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562	3,170	862	1,274	1,562
10,209	4 mos.	13,193	19,880	1,965	1,275	111	1,832	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562	
2,287	4 mos.	3,176	4,758	1,071	1,276	1,276	1,832	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562	
4,803	4 mos.	6,404	9,591	2,048	1,218	1,862	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562		
2,385	4 mos.	3,223	4,819	1,118	875	7,008	9,247	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562	
4,803	4 mos.	6,404	9,591	2,048	1,218	1,862	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562		
2,385	4 mos.	3,223	4,819	1,118	875	7,008	9,247	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562	
1,824	4 mos.	2,143	3,154	1,700	2,318	1,862	2,327	1,060	1,332	1,155	335	40	290	679	653	88.6	91.6	75	55	47	1,274	1,562		
321	Georgia Railroad	541	18	653	712	95	139	8	115	132	132	132	132	132	132	132	132	132	132	132	132	132	132	
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3	115	132	132	132	132	132	132	132	132	132	132	132	132	132		
321	4 mos.	2,134	85	2,615	345	400	38	3																

(Continued on page 46)



CALL THRALL for custom
quality on standard and
special freight cars

Thrall Car specializes in runs up to 200 cars—either standard cars or your own special design. Each unit is a custom quality job delivered at mass production prices. Thrall Car is experienced in building all types of railroad cars whether for interchange or unusual industrial service. May we call on you to demonstrate how we can serve you?

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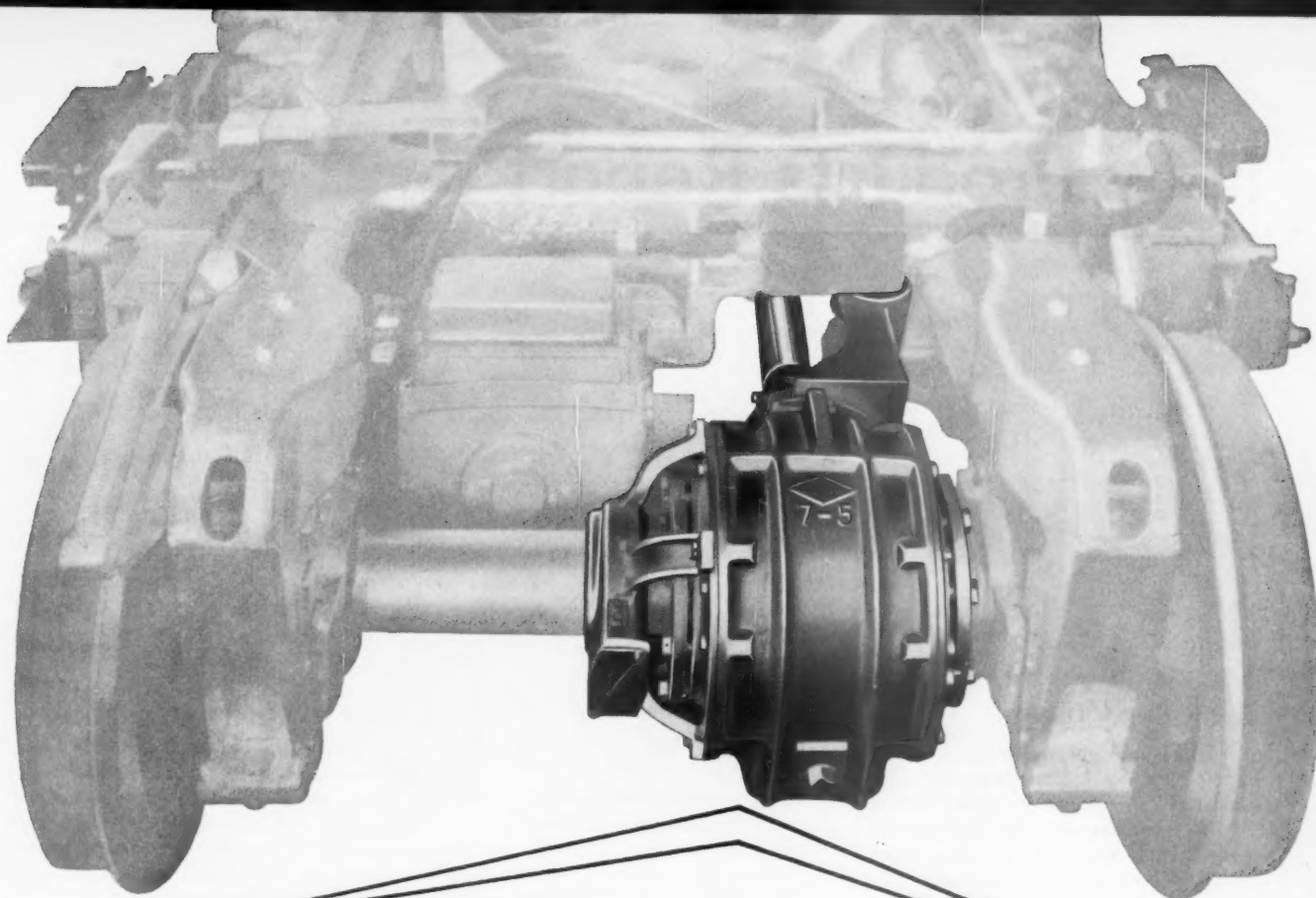
2602 Wallace St., Chicago Heights, Illinois

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1958

[illegible]



Make way for Lightweight Design with Spicer Traction Motor Drives

Spicer Traction Motor Drives play an important part in reducing the cost and weight of the newest self-propelled Rapid Transit cars being produced by the Pullman-Standard Company. 50 of the new cars are already in service for the Metropolitan Transit Authority of Boston, Massachusetts.

These cars employ high-speed, lightweight motors which are coupled by Spicer high-speed propeller shafts to Spicer Traction Drives. The drive permits the application of inboard bearing trucks which provides weight and cost saving features.

The Spicer Traction Drive permits maximum ac-

celeration through a single set of gears with optional ratios to match train schedules ranging from 5.88 to 1 up to 8.9 to 1.

To insure maximum performance, the Spicer assembly is delivered complete—ready to be secured on the axle. No further adjustments are necessary, for each set of gears has been mated, factory-adjusted and tested under actual running conditions.

If you're interested in cost and weight savings, as well as maximum efficiency from railway traction drives, write for the latest Spicer Technical Bulletin. The address is Dana Corporation, Toledo 1, Ohio.

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DANA PRODUCTS Serve Many Fields:

AUTOMOTIVE: Transmissions, Universal Joints, Propeller Shafts, Axles, Powr-Lok Differentials, Torque Converters, Gear Boxes, Power Take-Offs, Power Take-Off Joints, Clutches, Frames, Forgings, Stampings.

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RAILROAD: Transmissions, Universal Joints, Propeller Shafts, Generator Drives, Rail Car Drives, Pressed Steel Parts, Traction Motor Drives, Forgings, Stampings.

AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

MARINE: Universal Joints, Propeller Shafts, Gear Boxes, Forgings, Stampings.

Many of these products manufactured in Canada by Hayes Steel Products Limited, Merritton, Ontario



New Products Report



Electric Switch Lamp

A new lightweight stainless steel electric switch lamp, No. 2203, is equipped with hoods for 5 $\frac{3}{4}$ in. lenses. Either optical 30-deg. spreadlite or 5-deg. electric type lenses can be furnished. All sheet metal parts are of stainless steel. The base socket casting is heavy malleable iron. A hinged top, easily opened and closed, is held in place with a foolproof spring latch. A tamperproof fastener designed to use an AAR signal key can be incorporated in the lamp top, or a hasp provided to take a standard AAR padlock. The base socket casting is designed so the lamp cannot fall over. Standard AAR enameled day targets can be attached by insertion under the lens band. The lamps are equipped with No. 2 brass strain relief bushings having rubber grommets which securely grip the cable, eliminating necessity of a terminal block. When air cell type battery is used, connections should be soldered to lamp receptacle on account of low amperage. AAR terminal blocks can be furnished if desired. As strain relief bushing is in bottom of lamp, incoming cable can be led into lamp, and bushing itself is protected from weather. *Lovell-Dressel Co., Dept. RA, Arlington, N.J.*

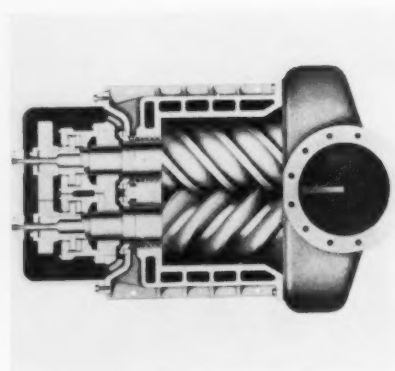


Electronic Megaphone

One of the lightest electronic megaphones ever produced features a germanium transistor amplifier and is powered by standard flashlight batteries. The "Transhailer" has a 10 $\frac{1}{2}$ -in. diameter horn, is 15 $\frac{1}{2}$ in. long, and its overall weight with batteries 5 lb. Range is over $\frac{1}{4}$ mile. Speaker, amplifier, batteries and microphone are in one sturdy weather-resistant unit, with pistol grip handle and trigger control. *The Pye Corp., Telecommunication Div. RA, 1149 Raritan Ave., Highland Park, N.J.*

Rubberlike Floor Runner

A new thermoplastic floor covering product, designated Color Chip Rubberlike, has been made available as a floor-protecting runner for heavy-traffic aisles. The product is flecked with two colors by means of plastic chips added during the manufacturing process. Colors are red and white flecks, or green and white, both against a black background. The product is said to have the appearance and serviceability of rubber and is made with an asphalt base and a non-skid surface. *Bird & Son, Dept. RA, East Walpole, Mass.*



Rotary Compressors

These positive-displacement rotary compressors, designed for continuous heavy-duty industrial service, have a standard capacity range of 800 to 13,000 dfm. Compactness of the new design permits savings in floor space and reduces foundation costs. The compressor is a two-impeller, helical-lobe, axial-flow, rotary machine with four-lobe power impeller and a secondary impeller with six matching gaps synchronized by timing gears. The impellers rotate with a pure rolling motion and power is transmitted to the secondary impeller through the cushion of compressed gas. Without metal-to-metal contact between impellers or casing, it is unnecessary to lubricate the impellers. The standard compressor casing is a casting cored with water passages for jacket cooling. The single-stage compressors include a range of compression ratios up to 5 to 1 which would permit intake at atmospheric pressure and discharge of 60 psi. The two-stage compressors, with ratios up to 11 to 1, can develop a maximum discharge pressure of 150 psi. Unit can be driven by induction or synchronous motor, diesel, or turbine. *Fairbanks, Morse & Co., Dept. RA, Chicago 5.*



Steel Lining for Box Car

This lining is made from 3/16-in. steel sheet and is claimed to reduce contamination and maintenance costs. The lining sheets also serve as gussets which strengthen the car. Lading band anchors are incorporated in the lining. Located over side posts, they serve to space the steel sheet surface flush with the heavier wood lining used above. The steel sheets can be extended on up to the side and end plates of the car, eliminating wood lining entirely. *Youngstown Steel Door Co., Dept. RA, Arcade, Cleveland 14.*



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Exposition in Chicago.

You'll find the Delco-Remy display of
heavy-duty A.C.-D.C. charging systems
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easily adapted to provide
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IC Bounces Back from Disaster

Illinois Central diesel units 9188 and 9136 were backing down to couple onto their train, freight No. 292. It was 3:10 o'clock on a quiet, cloudy Sunday afternoon in Mount Pulaski, Ill.

Eighteen cars from the head end of the train stood a tank car loaded with a solvent, later identified as Nitro-Methane.

The tank car exploded with a shattering blast. Two IC crewmen were killed. Another railroad employee was injured; some 40 townspeople suffered injuries or shock.

Bits of wreckage were thrown a quarter-mile from the scene. IC's Chicago-St. Louis line was cut. Windows were smashed. About two-thirds of the town's 1,500 residents were temporarily evacuated. National Guardsmen were called to prevent looting.

Illinois Central, along with the rest of Mount Pulaski, began the gigantic cleanup job.

Trains ran late, but they ran. Two passenger trains that Sunday were rerouted over the Gulf, Mobile & Ohio; freight operations were detoured via Lincoln, Ill.

But at Mount Pulaski, IC had three tracks out of service. Where the tank car blew up, there now was a crater 90 ft by 100 ft across and 36 ft deep. IC summoned the wrecker, brought in some 18 section men, obtained three bulldozers and 10 trucks. Dirt to fill the gaping hole in the ground had to be hauled from a pit eight miles away. But Illinois Central personnel, under the direction of Springfield Division Superintendent H. L. Williams, had the line back in service less than 51 hours after the blast.

Other problems remained. Damages remained to be determined and settled. Eight freight cars had been destroyed and 16 others damaged out of 292's consist of 37 loads and six empties. To complicate

the problem, the waybills had been destroyed when 292's conductor was killed.

But the important news was that Illinois Central had its railroad running again through Mount Pulaski. Its other blast-caused troubles, too, were on the way toward solution.

And, from the standpoint of physical rebuilding, IC had given another graphic demonstration of the railroad industry's ability to bounce back from a disaster such as this.

This was not the first disaster connected with tank car shipment of Nitro-Methane. On Jan. 22, 1958, a car loaded with the solvent exploded at Niagara Falls, N.Y. No deaths resulted, but some 180 persons were injured.

After the Niagara Falls blast, the AAR's Bureau of Explosives launched an investigation. To date, no cause for the explosion has been established.

According to the AAR report to the ICC, test results indicated that Nitro-Methane is not subject to classification under ICC regulations.

The Bureau obtained a sample of the liquid from the storage tank in Peoria, Ill., which was used for filling the car that exploded. Routine tests for classification were made. According to the report, the solvent does not flash below 80 deg F. Detonation and impact tests failed to produce an explosion from the sample.

Moreover, Nitro-Methane previously shipped in drums had given no trouble.

The only clue to the cause of the Niagara Falls explosion involved possible contamination. According to the AAR Bureau, the presence of "certain contaminants" could account for such an accident. AAR investigation at the shipper's plant, however, indicated that the car had been properly cleaned. Chemical examination of a sample from the storage tank showed that it contained less than 1% moisture

and that it contained small amounts of other Nitro-Paraffins.

Thus tank car shipments of Nitro-Methane continued—although it's believed the volume of such shipments has been extremely light.

Then, on June 1, at 3:10 p.m., disaster struck Mount Pulaski, Ill. The next day, the Car Service Division of the AAR issued an embargo on all tank car shipments of lacquer solvents N.O.I.B.N. (Nitro-Paraffin). One day later, the notice was corrected to cover lacquer solvents N.O.I.B.N. (Nitro-Methane); shippers of Nitro-Paraffin were required to certify on the bill of lading that the shipment was not Nitro-Methane.

The embargo was issued at the request of the ICC. The Commission was expected to order public hearings on the blast.

Commuter Subsidy?

Some Form Needed, Says Jersey Central's Moore

Do the railroads have to look to subsidy to absorb commuter deficits?

The question was posed to Earl T. Moore, president of the Central Railroad of New Jersey, at a recent railroad conference of the New Jersey State Chamber of Commerce in Newark.

His answer:

"If we mean by subsidy that it is not feasible to collect the full costs from the users, then some form of subsidy is necessary.

"Subsidy' is not a pleasant word. . . No one likes the idea of paying a part of someone else's bills. Yet, paradoxically, a great many taxes are a form of subsidy, either direct or indirect.

"Generally speaking, many of the taxes we pay are used to maintain some necessary public service for which the user or beneficiary does not pay the whole cost.

Mr. Moore then listed direct and indirect ways in which taxes subsidize the operations of other forms of transportation. He pointed out that "the railroad commuter gets less than no help at all. . . even the cars in which he rides, as well as the locomotives, are heavily taxed.

"Tax abatement," he concluded, "is long past due. However, tax abatement on passenger operations is not, in itself, sufficient to make ends meet."

The conference also presented the views of Harry W. Von Willer, president of the Erie; Cedric A. Major, president of the Lehigh Valley; and James P. Newell, president of the Pennsylvania-Reading Seashore Lines. Present was a large group of New Jersey businessmen.

The opening and closing remarks at the conference were made by Railway Age Editor James G. Lyne. Mr. Lyne held that discontinuance of rail passenger services that are unprofitable would ultimately be in the public interest and would lead to improved services where there is a paying demand for them.



THIS WAS THE SCENE shortly after a tank car loaded with Nitro-Methane exploded at Mount Pulaski, Ill. A similar explosion occurred less than six months ago at Niagara Falls, N. Y. (UPI Telephoto)



The bridge foreman of a large Midwestern railroad reports:
 "It took a three-man crew only three weeks to spray 14 bridges
 with Dearborn NO-OX-ID." Conventional painting procedure
 would have required three months' work and more than triple
 the manpower. If you're interested in big savings with low-cost,
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diesel power so well continuous unattended service...

Rugged, simple and compact—the new Fairbanks-Morse Model 45 Diesel is job-engineered for severest demands in railroad service.

Here is a heavy-duty engine and generating set ideal for new construction or conversions, for both 40 and 50 foot cars. Important operating economies are provided by top fuel and combustion efficiency over a broad load range, without engine loafing or overloading. Extra lube oil and cooling water capacity extends the operating range for greater safety margin. Cold weather starting is quick and positive. Unsurpassed accessibility facilitates routine servicing and operation.

There is a Fairbanks-Morse Model 45 engine and generating set for every refrigeration job. A Fairbanks-Morse engineer will be glad to work with your own engineers in specifying the right power unit for your needs. Fairbanks, Morse & Co., 600 So. Michigan Ave., Chicago 5, Ill.

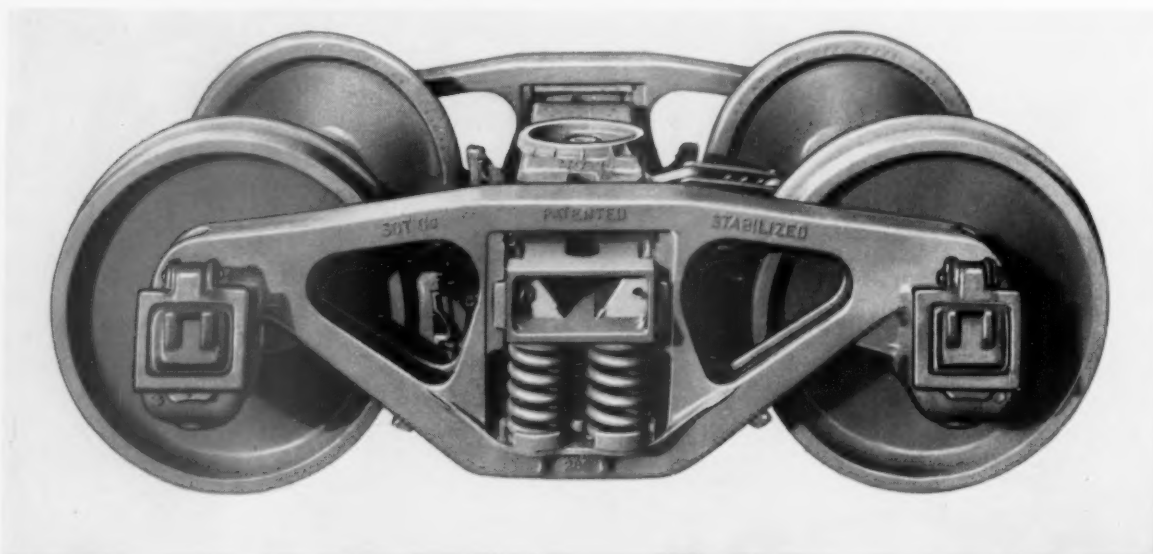


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MARKET OUTLOOK *at a glance*

Carloadings Inch 1.6% Over Previous Week's

Loadings of revenue freight in the week ended June 14 totaled 622,221 cars, the Association of American Railroads announced on June 19. This was an increase of 9,506 cars, or 1.6%, compared with the previous week; a decrease of 123,901 cars, or 16.6%, compared with the corresponding week last year; and a decrease of 179,207 cars, or 22.4%, compared with the equivalent 1956 week.

Loadings of revenue freight for the week ended June 7 totaled 612,715 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, June 7			
District	1958	1957	1956
Eastern	88,167	114,069	123,177
Allegheny	107,274	146,399	152,075
Poconchos	50,228	65,140	67,130
Southern	114,429	117,687	128,505
Northwestern	90,340	122,365	126,043
Central Western	111,497	116,804	128,065
Southwestern	50,780	51,013	62,080
Total Western Districts	252,617	290,182	316,188
Total All Roads	612,715	733,477	787,075
Commodities:			
Grain and grain products	53,705	47,184	56,686
Livestock	5,488	5,113	6,278
Coal	108,116	138,842	131,641
Coke	5,553	10,621	13,258
Forest Products	38,925	41,332	48,743
Ore	50,937	88,583	88,244
Merchandise i.c.l.	44,372	53,121	59,622
Miscellaneous	305,619	348,681	382,603
Cumulative totals 23 weeks	12,421,984	15,614,777	16,572,747

IN CANADA—Carloadings for the seven-day period ended June 7 totaled 82,172 cars, compared with 118,848 cars for the previous ten-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars	Total Cars Rec'd from Loaded Connections
Totals for Canada:		
June 7, 1958	82,172	26,396
June 7, 1957	85,809	30,742
Cumulative Totals:		
June 7, 1958	1,546,884	639,064
June 7, 1957	1,672,879	741,872

New Equipment

FREIGHT-TRAIN CARS

► **Burlington.**—Has ordered 250 freight cars at cost of more than \$3 million. Company shops will build 100 40-ft 6-in. box cars with cushion underframes and damage-free loading devices. The road also will buy 100 covered hoppers from Pullman-Standard and 50 Air-Slide hoppers from General American Transportation Corp. this year. Both types will have roller bearings. Under prior authorizations, 2,165 cars are scheduled for 1958 delivery.

► **Chicago Great Western.**—Has ordered five 50-ton Thrall insulated box cars at an estimated cost of \$14,000 each. Delivery is expected this month.

► **Cotton Belt.**—Expects to complete construction of 50 70-ton pulpwood cars at Pine Bluff Shops in the middle of July. Estimated cost, \$570,800.

► **Orders Rise.**—May orders for new freight cars totaled 1,372, a substantial increase over the 278 ordered in April. Deliveries in May totaled 3,534 compared with 5,163 in April and 8,824 in May 1957. Cars on order and undelivered on June 1 totaled 30,386 compared with 32,908 on May 1 and 97,006 a year ago.

Type	Ordered May, 1958	Delivered May, 1958	On Order & Undelivered June 1, 1958
Box—plain	1,005	432	9,673
Box—auto .....	..	..	600
Flat	1	32	2,119
Gondola .....	..	1,678	4,272
Hopper .....	..	684	9,231
Cov. hopper	4	134	1,296
Refrigerator .....	..	207	1,480
Tank	306	340	1,412
Caboose .....	..	9	38
Other	56	18	265
TOTAL	1,372	3,534	30,386
Car builders	1,321	2,164	6,955
Railroad shops	51	1,370	23,431

LOCOMOTIVES

► **Spanish National Railways.**—Has ordered nine 3,000-hp electric locomotives from Westinghouse Electric International Co. at a cost of \$2.5 million. Delivery will begin in mid-1959 and proceed at the rate of two a month.

New Facilities

► **Great Northern.**—Is seeking ICC approval to build a 20-mile branch from Glasgow, Mont., to a new U. S. Air Force base now under construction north of that city. Great Northern forces would build the line, which is expected to cost in excess of \$1 million.

► **Minnesota Transfer.**—Completed grading of 123 acres of industrial property between St. Paul and New Brighton, Minn. The project, costing about \$105,000, included 25 acres of clearing and approximately 460,000 cubic yards of grading.

► **Rock Island.**—Will replace manually operated grain car unloading facilities with semi-automatic unloading shovelfeys at the RI Armourdale Grain Elevator, Kansas City, Kan.

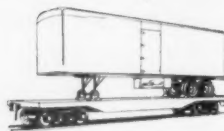


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Chicago Can't Regulate Passenger Transfer Service

Motor vehicle operations for station-to-station transfer of railroad passengers traveling through Chicago cannot be regulated by that city.

The United States Supreme Court has so ruled. It affirmed the Circuit Court of Appeals for the Seventh Circuit which had struck down a Chicago ordinance requiring transfer agents to obtain certificates of convenience and necessity.

The ordinance was passed after the Chicago railroads had engaged Railroad Transfer Service to perform the transfer operations which had been conducted for more than 100 years by Parmelee Transportation Company. The certificate requirement applied to Transfer but not to Parmelee, because the ordinance provided that no certificate was needed for renewal of an existing license.

Transfer began operating October 1, 1955, but refused to apply for a certificate. It took the position that the ordinance was either inapplicable to its vehicles or, if applicable, invalid. The city threatened to arrest its drivers, so Transfer, joined by the Chicago roads, filed the suit out of which the present decision has come. Parmelee was permitted to intervene as a defendant and the city won the first round when the district court dismissed the complaint. The circuit court reversed, holding that the ordinance applied to Transfer but was unconstitutional.

The city and Parmelee then appealed to the Supreme Court. That court's ruling was a 6-to-3 decision announced by Justice Black. A dissenting opinion came from Justice Harlan with whom Justices Frankfurter and Burton agreed. They did not think the court should have passed on the validity of the ordinance until Transfer had applied for a certificate and the city had an opportunity to act on the application.

Conciliation Board Hears CNR — Firemen Dispute

Conciliation board hearings opened last Tuesday on the Canadian National-Brotherhood of Locomotive Firemen & Enginemen dispute. The hearings will cover CNR's bid for sole management discretion in the assignment of firemen.

The CNR is underlining its stand with the claim that retention of firemen on freight and yard diesels, even if rates of pay remain stationary, would cost the company an estimated \$197 million by 1971.

A union spokesman says the firemen will fight the CNR move—despite the fact that a recent union settlement with the CPR agreed to the elimination of yard and freight diesel firemen on that road. The union's position is that it was forced into the CPR settlement by a combination of circumstances—including the threat of government intervention on the railroad's side—that do not necessarily apply in the CPR case.

ATSF Builds 'Shock Control' Car

The Santa Fe last week unveiled its first new "Shock Control" freight car—a modified DF box car with a floating underframe.

ATSF President Ernest S. Marsh said that 100 of the new cars have been placed in production schedules for August and September construction. Santa Fe's Topeka, Kan., shops built the first of the series—ATSF 10001—and will handle construction of the rest of the orders (RA, May 26, p. 7).

The "Shock Control" design incorporates into the car a movable center sill with a predetermined amount of travel in either direction. A hydraulic device located horizontally in the middle of the car retards the sill travel.

The hydraulic device itself is a double-acting cylinder and piston in an outer housing which acts as a reservoir for the hydraulic fluid. The gear absorbs impact energy from both buff and draft impacts without inherent recoil, according to Santa Fe. Sill travel covers 10 inches in either direction.

Use of the "Shock Control" system with conventional high-capacity draft gear, Santa Fe indicated, will protect fragile lading at impact speeds of up to approximately 12 mph.

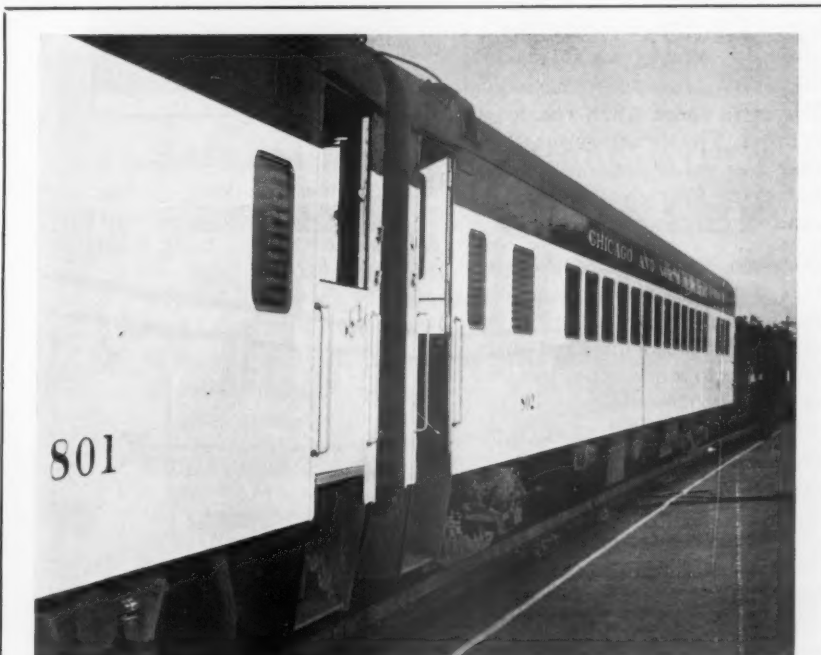
ATSF 10001, the initial car off the production line, is a modified conventional 50-ft, 6-in., DF box car equipped with the floating underframe. The car is also equipped with roller bearing ride control trucks with long travel springs and 6x11 journals to compensate for additional weight and to provide 60-ton capacity instead of the 50-ton capacity usually specified for a car of this size.

Santa Fe is dressing the cars in a new paint scheme—Indian red with black and white lettering which reads "DF with Shock Control—Floating Underframe—Gives Freight a Smoother Roll."

The first car came out of Topeka shops June 14 and was scheduled for exhibition June 19 and 20 at the Fresno, Calif., meeting of the Pacific Coast Shippers Advisory Board.

Minnesota Intrastate Rates Are Increased

Railroads operating in Minnesota have been granted a 7% increase on intrastate freight rates. The order, effective June 1, brings intrastate rates in line with interstate levels authorized by the ICC last October.



Rebuilt Coaches Go Back to C&NW

Twenty-five "re-manufactured" mainline coaches are being put into service on Chicago & North Western's "400" streamliners. Originally the cars were lightweight coaches and coach combinations which needed heavier rebuilding than C&NW could handle. All are being rebuilt by Pullman-Standard into coaches with rigid vestibule steps,

tinted windows which require no shades, plastic wainscoting and slip-covered seats. These 25 coaches, plus the "bi-level" trains Pullman-Standard will deliver in August—all added to the cream of its existing equipment—will give C&NW its best fleet of passenger equipment in years, says President Clyde J. Fitzpatrick.

No power let-down here...

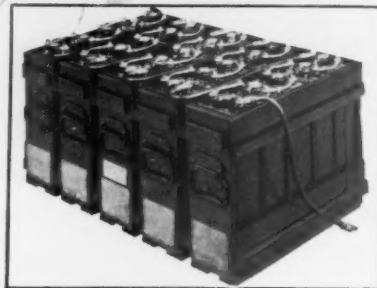


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Letters from Readers

Syracuse, N. Y.

To the Editor:

Your April 21 "Outrage" article dealt with New York Central's St. Lawrence Division passenger service. We have just completed presentation of our case for this discontinuance before the Public Service Commission.

Our application is being opposed by the principal communities served, who talk about the "need" for rail service and the "inadequacies" of highway and air travel. The fact that we spent \$882,000 in direct expenses in 1957 to produce \$452,000 in revenue appears to be of small concern.

It is interesting to note that the state and federal governments are spending several million dollars building a new limited access highway directly paralleling our railroad north from Syracuse.

It is also interesting to note that the city of Watertown quite willingly supports an airport loss of over \$78,500—not counting the value of federal aid, tax exemption, or the use of public credit. In direct contrast, the New York Central spent over \$54,000 of its own money maintaining and operating its Watertown station, including \$8,925 in real estate taxes.

In Ogdensburg there is a similar story. The airport is supported by the city at the rate of over \$27,000 a year, excluding the value of federal aid and the use of public credits, but including taxes paid to the neighboring town in which the airport is actually located. The railroad spent \$22,501 last year maintaining its Ogdensburg combination freight-passenger station, including \$915 in taxes.

At Massena, the city supports an airport loss of over \$29,975 a year, not including the value of federal aid, tax exemption or the use of public credit. Central's combination freight-passenger station cost the railroad \$17,388 last year, including taxes of \$2,290.

In considering the quantity and value of aid supplied to the airports by these cities, it should be kept in mind that they are used for the movement of air freight, mail, air express, charter operations, and private company-owned planes as well as for the accommodations of passengers.

Although these airports have some other uses beside passenger service, the point is clearly that the plight of our St. Lawrence Division passenger service is, in part at least, the end result of action by local communities in aiding and subsidizing air and highway travel while simultaneously taxing and restricting railroad transportation.

G. W. Maxwell
General Manager
New York Central,
Eastern District



Charles R. Riley
B&O



Guy R. Glover
Burlington

People in the News

BALTIMORE & OHIO.—Charles R. Riley, chief engineer maintenance, Baltimore, Md., appointed chief engineer of the system, succeeding Karl J. Wagoner, who retired June 1. Engineering and maintenance of way departments have been consolidated. E. F. Wright, assistant chief engineer, engineering department, named assistant chief engineer—construction. C. E. Jackman, assistant chief engineer—maintenance, maintenance of way department, appointed assistant chief engineer—maintenance.

James L. Hackett, assistant general passenger agent, New York, named general eastern passenger agent there, succeeding the late Harry L. Porter.

David E. Green, superintendent of express traffic, Baltimore, retired June 1. Windsor G. Kessler, district mail, express and baggage agent, succeeds Mr. Green.

BURLINGTON.—Guy R. Glover, assistant to vice-president, traffic department, Chicago, appointed vice-president, traffic department there, to succeed Lawrence R. Capron, who retires June 30.

CANADIAN NATIONAL.—Robert C. Sykes, labor relations assistant, Montreal, appointed assistant manager, labor relations.

COTTON BELT.—Jack Rector appointed western traffic manager, Los Angeles, Calif. Abolished position of assistant traffic manager, heretofore held by Mr. Rector. Keith Hudgins appointed general agent, Winston-Salem, N.C., succeeding J. B. Carter, transferred to Philadelphia, Pa., to replace C. S. Rogers, who retired June 1.

FLORIDA EAST COAST.—A. A. Jackson appointed chief executive officer for trustees, St. Augustine, Fla. F. L. Aitcheson, assistant chief operating officer, retired June 1, at his own request. George N. Holman appointed director of personnel, St. Augustine.

GRAND TRUNK WESTERN.—D. E. Prover, assistant superintendent-labor relations, Detroit, Mich., appointed superintendent-labor relations, succeeding A. L. Loeffert, who retired May 1. G. B. Monaghan, administrative assistant-personnel, succeeds Mr. Prover.

Organizations

AMERICAN COUNCIL OF RAILROAD WOMEN.—Miss Catherine Merriman, cost research analyst, Chesapeake & Ohio, Cleveland, elected president of the council.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—New officers are: President, F. E. Wolff, manager, Department of Immigration and Agricultural Development, Canadian Pacific, Montreal; first vice-president, F. B. Stratton, director of industrial development, Western Pacific, San Francisco; second vice-president, J. W. Ewalt, director, real estate, Pennsylvania, Philadelphia; secretary, L. B. Horton, commissioner of agricultural and mineral development, Milwaukee Road, Chicago. The ARDA's 1959 annual meeting will be held in Toronto, Ont., Canada, May 24-27.

ASSOCIATED TRAFFIC CLUBS OF AMERICA.—Dr. Edmund A. Nightingale, professor of Economics and Transportation, School of Business Administration, University of Minnesota, Minneapolis, appointed chairman of Education and Research Committee, succeeding R. A. Ellison, manager transportation department, Cincinnati Chamber of Commerce.

CENTRAL WESTERN SHIPPERS ADVISORY BOARD.—Newly elected officers are: General Chairman, W. G. Koplin, traffic manager, Salt Lake Hardware Company, Salt Lake City; vice-general chairman, Vern J. Tannlund, general traffic manager, J. R. Simplot Company, Boise, Ida.; general secretary, Howard A. Hosek, traffic manager, Tivoli Brewing Company, Denver; alternate general secretary, E. A. Stoker, traffic manager, Amalgamated Sugar Company, Ogden, Utah.

MID-WEST SHIPPERS ADVISORY BOARD.—123rd regular meeting will be held July 9-10 at the Schroeder Hotel, Milwaukee, Wis.

MILITARY RAILWAY SERVICE VETERANS.—13th annual reunion will be held September 19-21 at the Mayflower Hotel, Washington, D.C. Fred W. Okie (P.O. Box 536, Pittsburgh 30, Pa.) is secretary.

NORTHWEST SHIPPERS ADVISORY BOARD.—120th regular meeting will be held July 30-31 at the Duluth Hotel, Duluth, Minn. Speaker July 31 will be Ron Kennedy, vice-president—personnel and public

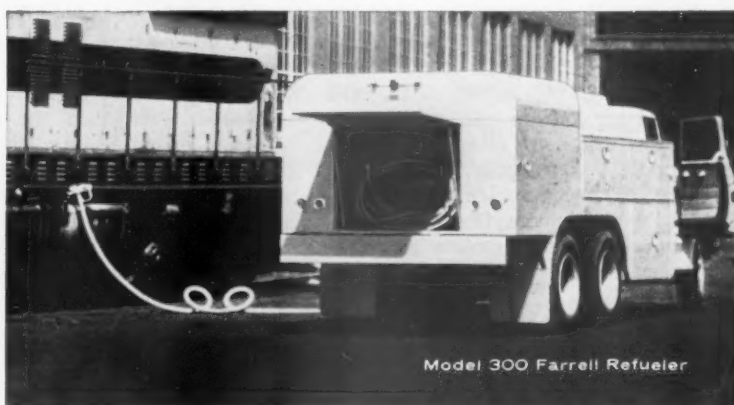
relations, F. H. Peavey & Co., Minneapolis, Minn.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—Semi-annual meeting was held June 15-19 at the Statler Hilton Hotel, Detroit, Mich.

The Materials Handling Conference, sponsored by the ASME, was held June 9-12 at the Public Auditorium, Cleveland, Ohio. R. C. Trench, materials handling engineer, Chesapeake & Ohio, Richmond, Va., spoke on "Design and Construction of High Capacity Bulk Handling Equipment" on June 11.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—Newly elected officers are: President, Howard Skidmore, director of public relations, Chesapeake & Ohio, Cleveland; vice-president—eastern region, James A. Schultz, director of public relations, Long Island; vice-president—southern region, W. J. Whitsett, assistant to president, Louisville & Nashville; vice-president—western region, Edwin C. Schafer, director of public relations, Union Pacific; secretary-treasurer, Harold H. Boettger, special representative, Association of American Railroads.

SUPERINTENDENTS ASSOCIATION.—W. B. Groome, assistant superintendent, Union Pacific, Salt Lake City, is the new fourth vice-president of this association. Railway Age of June 9 reported, in error, that A. S. Tabor, superintendent, Norfolk & Western, Portsmouth, Ohio, had been elected to that position.



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You Ought To Know...

New York Central will save \$784,515 in taxes paid to New York City this year as a result of a reassessment of the value of its right to use the city streets. A \$21,969,564 cut in assessed valuation means that the NYC will pay \$2,253,014 in special franchise taxes this year (based on a new tax rate of \$4.16 on each \$100); compared with the \$3,037,529 it paid last year on the basis of a \$3.99 rate.

► Further savings will accrue to NYC as the result of an order late last week permitting discontinuance of 23 of the 41 trains on the road's West Shore Division. This means abandonment of train service between Albany, N.Y. and West Haverstraw.

Railroad-owned property will play a large part in the development of the port of Toledo, Ohio. The Toledo-Lucas County Port Authority has paid \$233,035 for a 65-acre Chesapeake & Ohio waterfront site. Other proposed sites to be used for the leasing of grain facilities belong to the New York Central and Wabash.

Floods in central Indiana this month inflicted minor damages on the railroads. New York Central reported a bridge washout on the Peoria & Eastern; Pennsylvania and Chicago & Eastern Illinois had spurs out of service, the former near West Terre Haute, the latter out of Clinton.

Negro gains in railroad employment have been reported by the New York State Commission Against Discrimination and the New Jersey Department of Education. Of 20,099 non-op workers on 19 railroads in the two states, 118 are Negroes. All have been hired in recent years.

No conclusions have been reached as the result of a preliminary report to the Board of Directors of Missouri-Pacific on the possibilities of merging MoPac with Texas & Pacific.

Compulsory union membership in the railway industry may be influenced by a battle now being waged in North Carolina. A jury in Mecklenburg County has ruled that 26 Southern Railway employees need not join or take any oath of allegiance to the unions and only be required to pay such dues, etc., as the union can prove "reasonably necessary and incident to collective bargaining . . ." The court limited the protection of the injunction to the plaintiffs. Next step: the N. C. Supreme Court.

A 14 per cent decrease in third quarter carloadings, compared with 1957, is predicted by the Ohio Valley Transportation Board. Sharpest decline is expected to be in coal and coke, where a drop of 144,000 carloads is anticipated.

► Poor shipper attendance at board meetings was also taken up at last week's session of the Ohio Valley board. The board will send out a questionnaire to shipper members to find out why more don't show up.

Sightseeing incentives may spur passenger traffic for the Chesapeake and Ohio. These include all-expense package tours to New York for three or more days with non-railroad details worked out by a travel agency. Private parties, families, and couples can save varying round-trip amounts.

The high cost of freak weather was felt by Southern Pacific in 1957. Storm damage cost the line \$4.8 million before taxes. Of this, \$2.3 million went into repairing damage; \$2.5 million was in freight revenue lost through the destruction of spring crops.

► The Pennsylvania has tied a \$10 million price tag (in loss of revenues and increased expenses) to a pair of first quarter snowstorms.

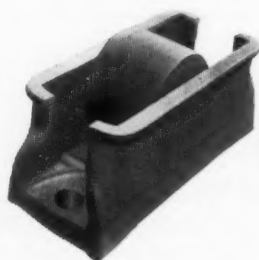
The subject of survival is occupying many railway publications—which may be one reason why the Smathers Bill drew the Senate's biggest avalanche of mail this year. Special treatment appeared in such periodicals as C&O's Tracks; the B&O magazine; ACL's News. The latter, for instance, includes an excellent section on what railroad taxes mean for a community.

Railroad employment shrank again in May, according to ICC. The number of Class I employees totaled 824,813—17.80 per cent below May 1957 and .48 per cent below the preceding month. An increase over April, however, was registered among those working on maintenance of equipment and stores.

Plywood lining in box cars has saved money for Southern Pacific. By stapling big sheets of new plywood over the old linings, SP modernized 400 box cars. By not having to remove the old linings, modernization time was cut by two-thirds.



COMBINED HIGHWAY AND RAIL LINE is Chicago's new concept in mass transportation. The new 9½-mile Congress Street-West Side subway involved building rail rapid transit and a multilane automobile expressway in the same grade-separated private right-of-way. New line is shown in foreground (above); old line can be seen behind it. Stations are largely aluminum.



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Are Working Rules Important?

There are a few railroad management people who doubt that restrictive working rules are a major handicap to railroad prosperity. Most, but not all, of the union leaders appear to share this opinion.

However, it ought to be obvious to all railroaders that an industry beset with competition, as the railroads are, cannot hope to prosper if forced to incur wasteful expense—of whatever origin. The fact that some railroad management people, and a larger number of unionists, do not understand this situation is proof enough that more discussion of it is necessary.

Restrictive working rules provide an ideal target for the railroads' enemies. Some of them, for example, are saying that Congress and the legislatures should do nothing to remove the regulatory restrictions that government has put upon the railroads, until railroad management forces the unions to forego restrictive working rules. This is like saying to a drowning man that you won't pull him out of the water until he buys himself a boat. If railroad management needed only the desire, to shake off coercive regulations—applied either by unions or government—the industry would not be in its present critical condition.

As a matter of fact, government is an active partner in the "make work" rules situation. Some of the most burdensome of these rules have been laid on the railroads directly or indirectly by government. The "back pay" exactions against the railroads have been, without exception, levied

upon them by referees appointed under a New Deal amendment to the Railway Labor Act. The equally burdensome requirements for excessive numbers of employees in train and engine crews are as often prescribed by state law as by concessions of management to the unions.

No matter how insistent railway managements might be in their dealings with the railway unions, they are not going to be able to get rid of some of the most oppressive "make work" restrictions, unless changes are made in both federal and state laws. And changes in the law are not likely to come about until the entire working rules situation is much better and more widely understood than it is so far.

This paper appreciates the position of union employees on this issue. Restrictive working rules are not the result and evidence of original sin on the part of the unionists. They are a hang-over from the past. Forty or fifty years ago the railroads had no effective competitors—and nothing is more natural in dealing with monopolies than to enact regulations governing their conduct.

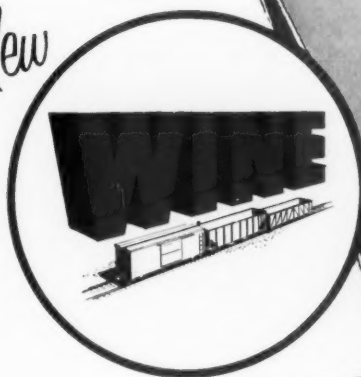
The job to be done is to establish a constructive and realistic policy for the future—not one of finding somebody to blame for present difficulties. There are no vampires and werewolves in this picture—but just a lot of people trying vainly to railroad in 1958 the way they used to railroad in 1925 or 1915.

The timetable for changes in working rules does not interfere with urgently needed federal and state amendments to regulatory and tax laws—because the latter should be enacted now. Changes in working rules, of necessity, must come later—if for no other reason than the existing agreement of the railroads with the unions which has more than a year to run. But necessary delay in actually changing the rules does not preclude educational discussion of them in advance.

WHAT'S IN IT FOR LABOR?: Unionists cannot be expected to give up easily, concessions they've won, unless there's promise that their cooperation will help to restore prosperity and growth to the railroads. To the extent that economies effected by changed working rules are used to make attractive rates and improve service on competitive traffic, unionists as well as railroad owners would benefit. There is a common interest of managements and labor in this problem. It is to the advantage of both sides that they seek out and cultivate this common interest.

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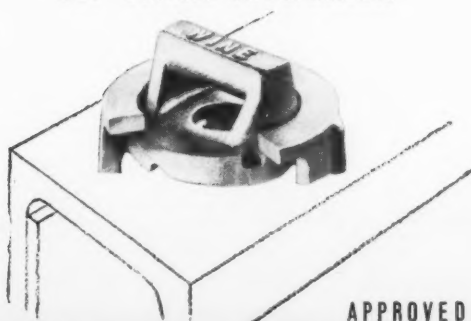


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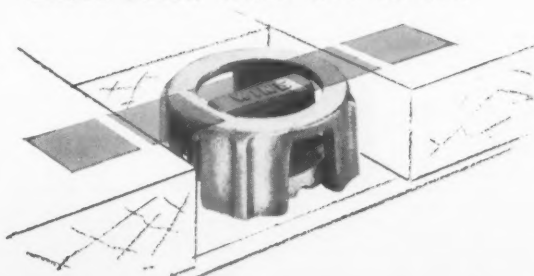
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